HALLIBURTON

SPECTRAL DENSITY DUAL SPACED NEUTRON LOG

COMPANY	SANDRIDGE ENERGY
WELL	SALT SWD 3419 1-4
FIELD	SADDLE
COUNTY	COMANCHE
STATE	KANSAS

COMPANY **SANDRIDGE ENERGY**
WELL **SALT SWD 3419 1-4**
FIELD **SADDLE**
COUNTY **COMANCHE** STATE **KANSAS**

API No. 15-033-21640-01-00
Location 233' FNL & 353' FEL

Other Services:
XRMI
MRIL
WSTT
DSNT, SDLT
MICROLOG
ACRT

Sect. 4 Twp. 34S Rge. 19W

Permanent Datum	GL	Elev. 1992.0 ft	Elev.: K.B. 2004.0 ft
Log measured from	KB	12.0 ft above perm. Datum	D.F. 2003.0 ft
Drilling measured from	KB		G.L. 1992.0 ft

Date		15-Jun-12		
Run No.		ONE		
Depth - Driller		6770.00 ft		
Depth - Logger		6744.0 ft		
Bottom - Logged Interval		6656.0 ft		
Top - Logged Interval		1002.0 ft		
Casing - Driller		9.625 in @ 1000.0 ft	@	@
Casing - Logger		1002.0 ft		
Bit Size		8.750 in	@	@
Type Fluid in Hole		WATER BASED MUD		
Density	Viscosity	9.0 ppg / 43.00 s/qt		
PH	Fluid Loss	9.50 pH / 8.0 cptm		
Source of Sample		FLOW LINE		
Rm @ Meas. Temperature		0.250 ohmm @ 75.00 degF	@	@
Rmf @ Meas. Temperature		0.22 ohmm @ 75.00 degF	@	@
Rmc @ Meas. Temperature		0.300 ohmm @ 75.00 degF	@	@
Source Rmf	Rmc	MEAS / MEAS		
Rm @ BHT		0.26 ohmm @ 75.0 degF	@	@
Time Since Circulation		16.0 hr		
Time on Bottom		15-Jun-12 12:08		
Max. Rec. Temperature		157.0 degF @ 6744.0 ft	@	@
Equipment	Location	10546696 / LIBERAL		
Recorded By		J. BOLLOM		
Witnessed By		L. SOLIZ		

Fold here

Service Ticket No.: 9576213 API Serial No.: 15-033-21640-01-00 PGM Version: WL INSITE R3.4.2 (Build 2)

CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE

Date	Sample No.				
Depth-Driller					
Type Fluid in Hole					
Density	Viscosity				
Ph	Fluid Loss				
Source of Sample					
Rm @ Meas. Temp		@		@	
Rmf @ Meas. Temp.		@		@	
Rmc @ Meas. Temp.		@		@	
Source Rmf	Rmc				
Rm @ BHT		@		@	
Rmf @ BHT		@		@	
Rmc @ BHT		@		@	

RESISTIVITY SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

RESISTIVITY EQUIPMENT DATA

Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other

EQUIPMENT DATA

GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No.	ONE	Run No.		Run No.	ONE	Run No.	ONE
Serial No.	11039640	Serial No.		Serial No.	I04_M296	Serial No.	11055304
Model No.	GTET	Model No.		Model No.	SDLT-I	Model No.	DSNT-I
Diameter	3.625"	No. of Cent.		Diameter	4.5"	Diameter	3.625"
Detector Model No.	GTET	Spacing		Log Type	GAM-GAM	Log Type	NEU-NEU
Type	SCINT			Source Type	CS137	Source Type	AM241BE
Length	8'	LSA [Y/N]		Serial No.	5168GW	Serial No.	DSN-424
Distance to Source	18'	FWDA [Y/N]		Strength	1.5 CI	Strength	15 CI

LOGGING DATA

GENERAL	GAMMA	ACOUSTIC	DENSITY	NEUTRON

GENERAL			GAMMA		ACOUSTIC			DENSITY			NEUTRON		
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
No.	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	6744	1002	REC	0	150				30	-10	2.71	30	-10	LIME

DIRECTIONAL INFORMATION

Maximum Deviation	@	KOP	@

Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 7-INCH CASING

CHLORDIES REPORTED AT 15000 PPM

LCM REPORTED AT 2 LB/BBL

GTET-CSNG-DSNT-SDLT-WSTT-XRMI-ACRT RUN IN COMBINATION

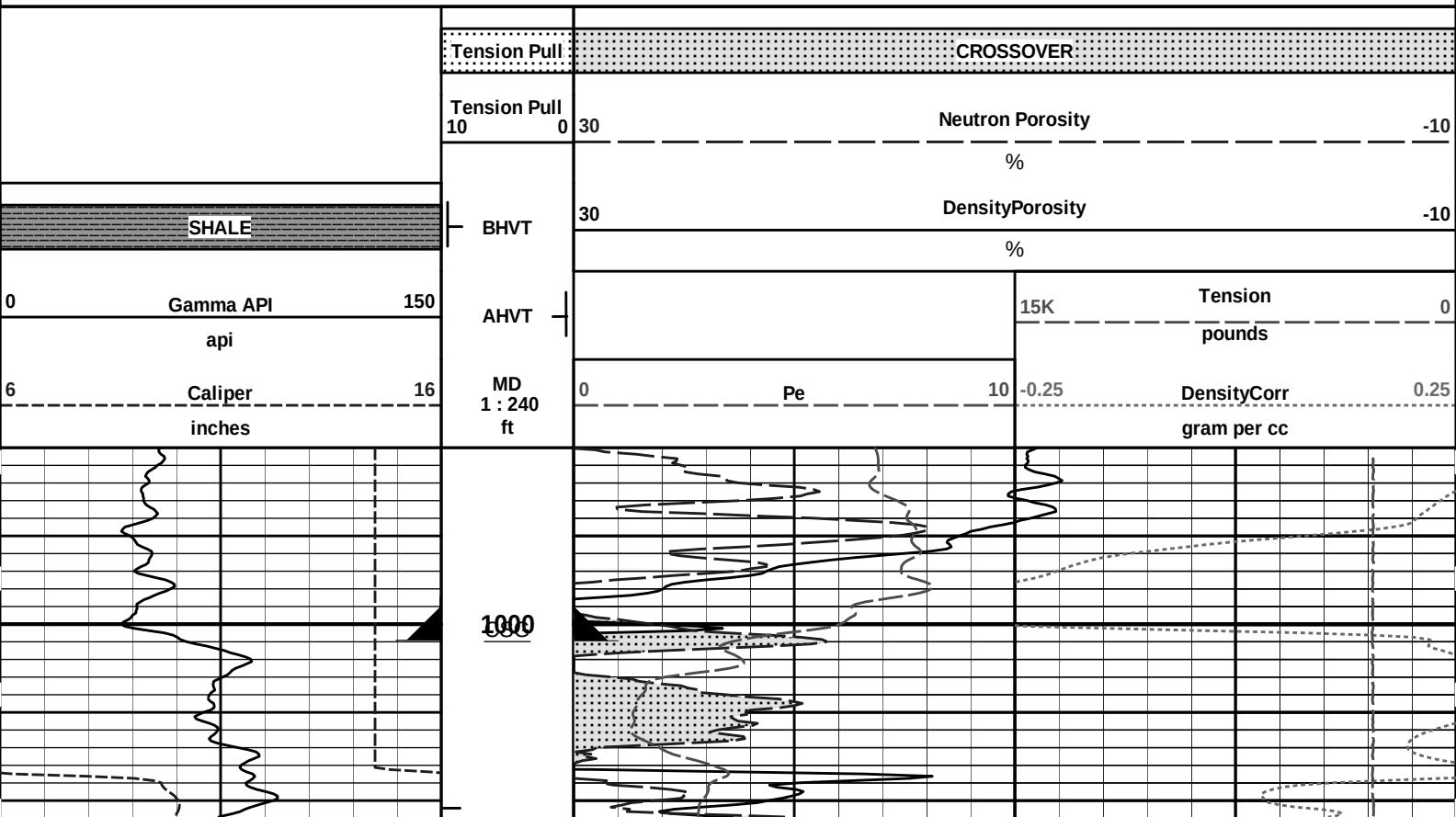
TODAY'S CREW: K. KING & V. JAIME

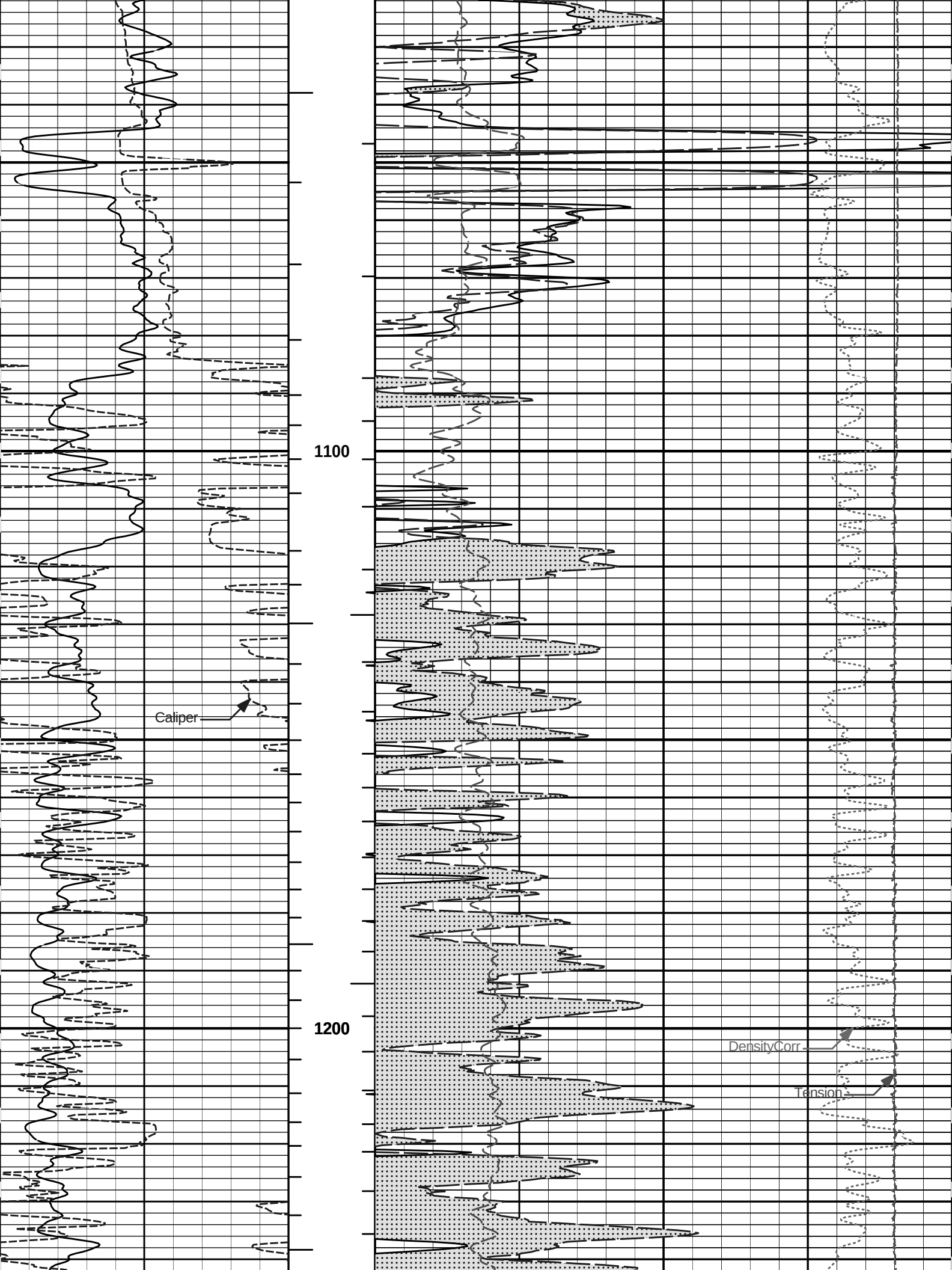
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES LIBERAL, KS. 620-624-8123

HALLIBURTON

Plot Time: 15-Jun-12 22:11:49
Plot Range: 980 ft to 6751.17 ft
Data: SALT_3419_SWD14\Well Based\CASING
Plot File: \\PORO\Poro_IQ_5_MAIN_LIB

5 INCH MAIN LOG

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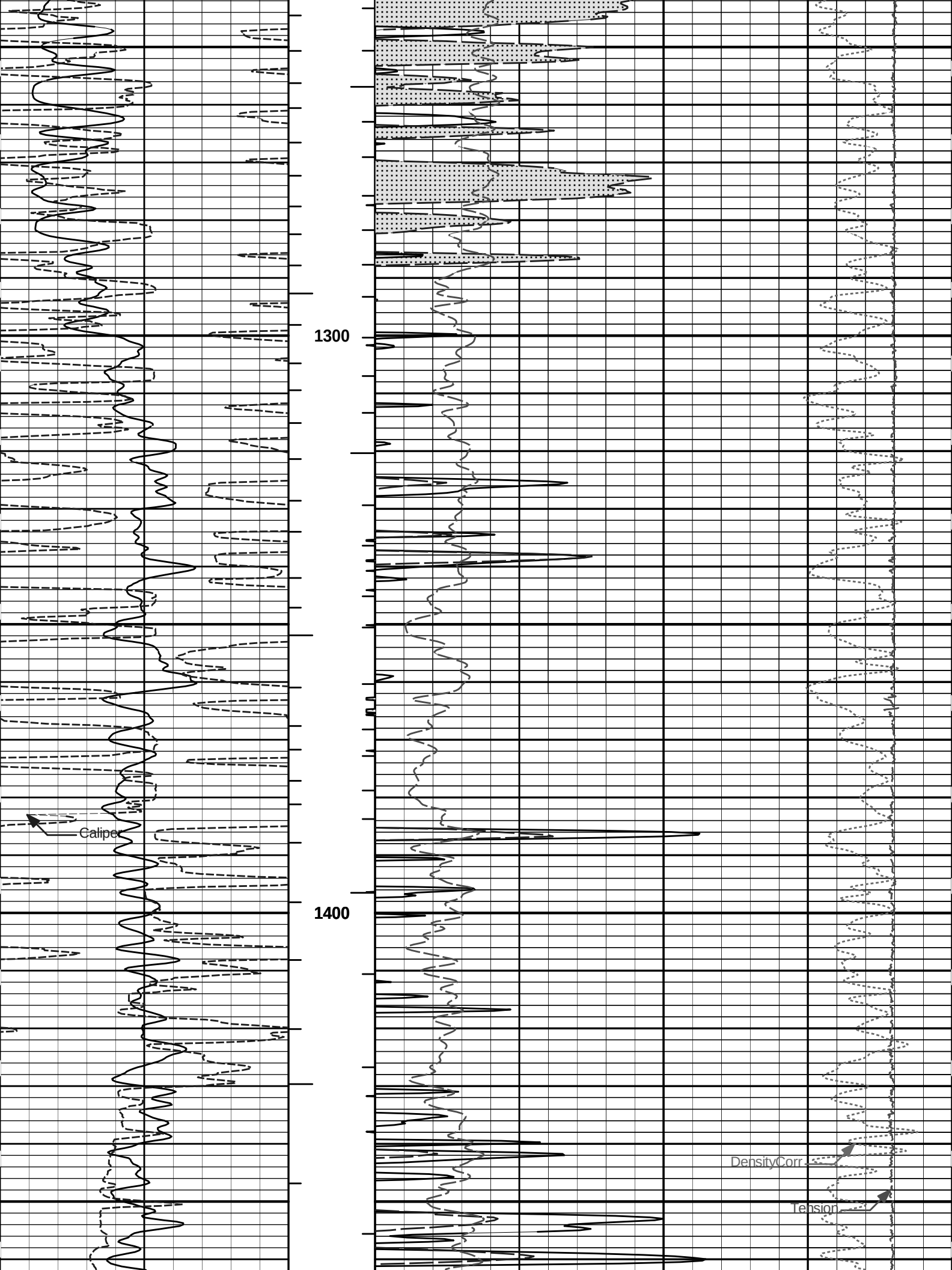
Caliper
DensityCorr
Tension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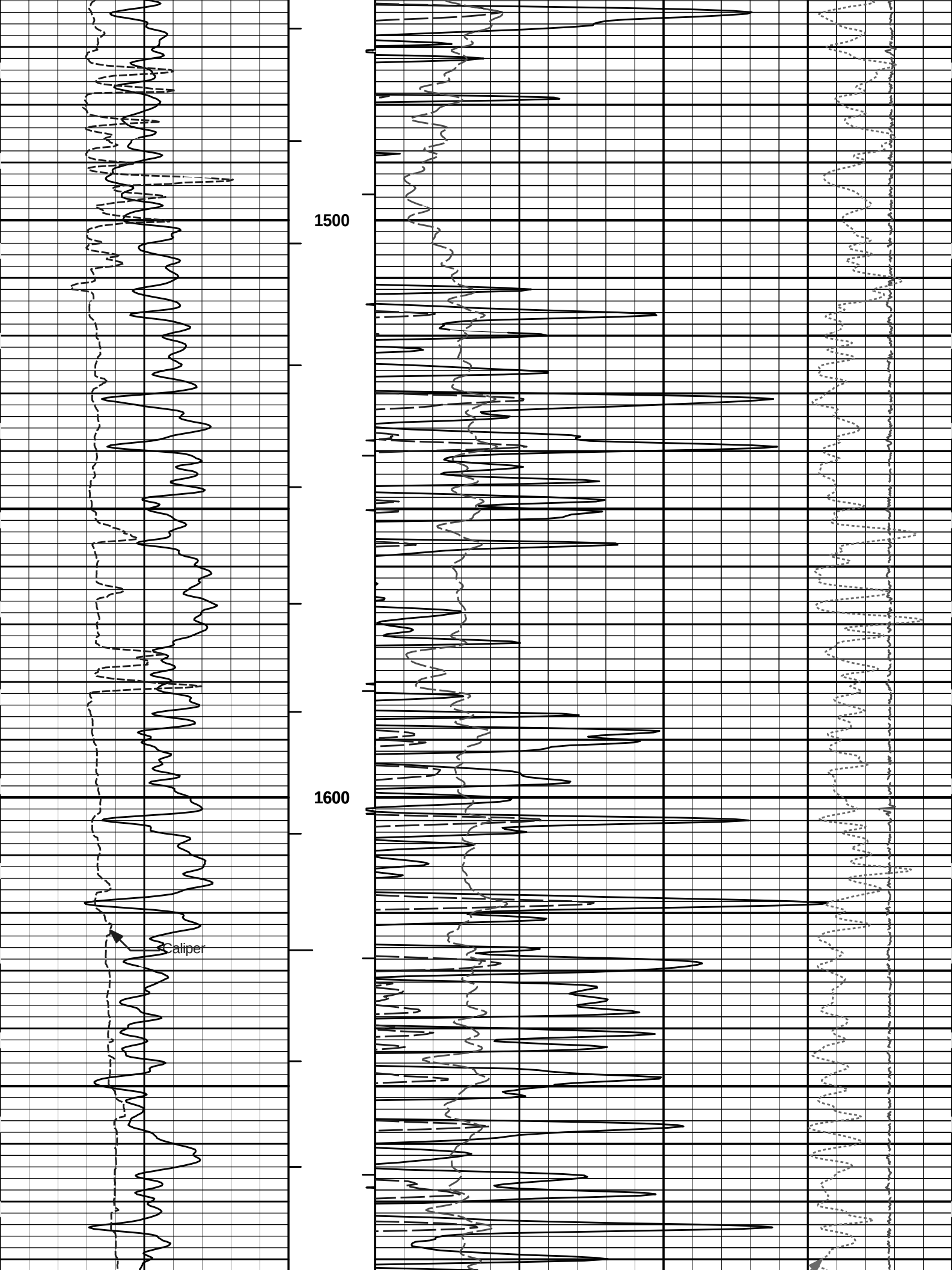
Tension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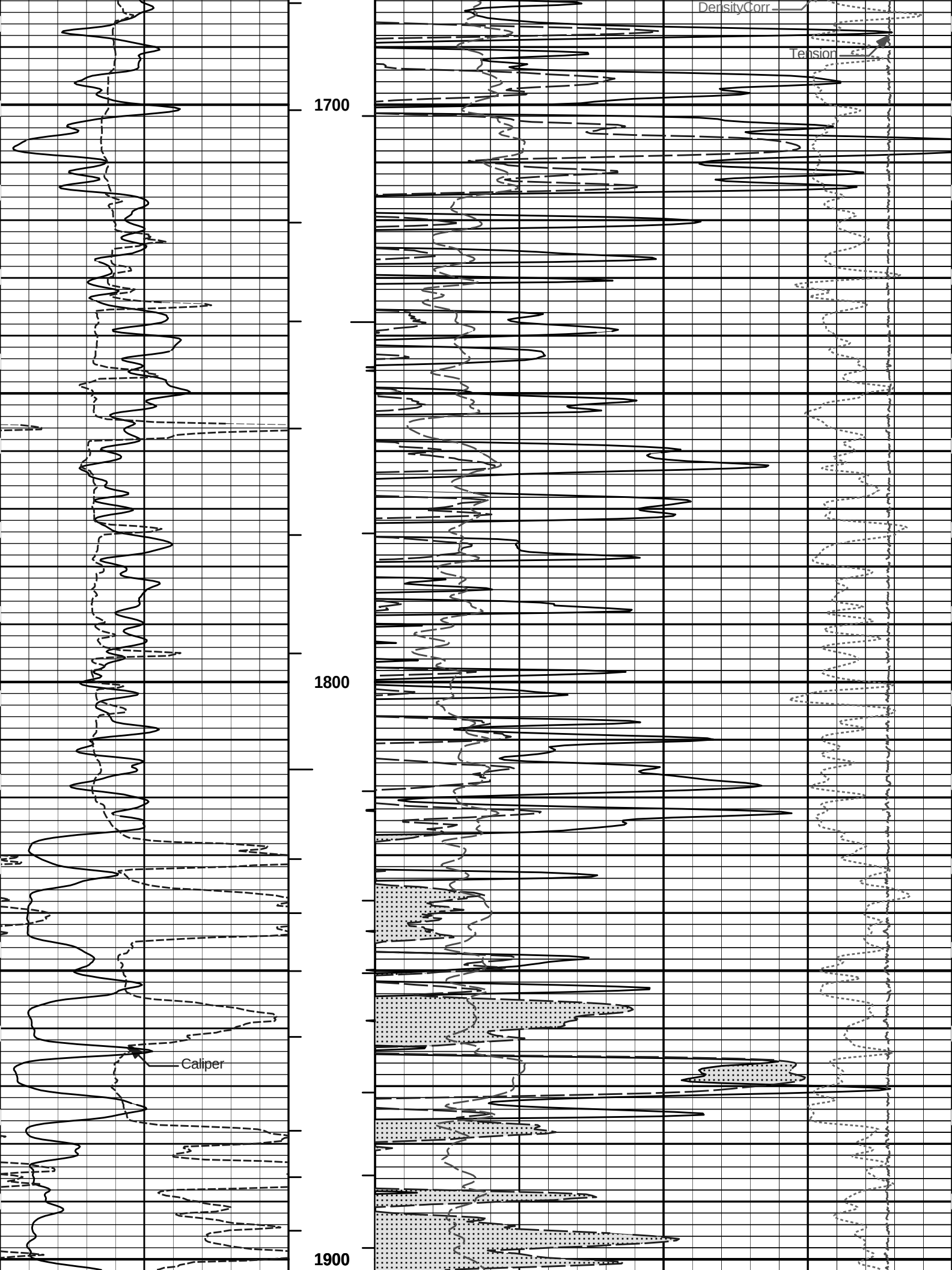
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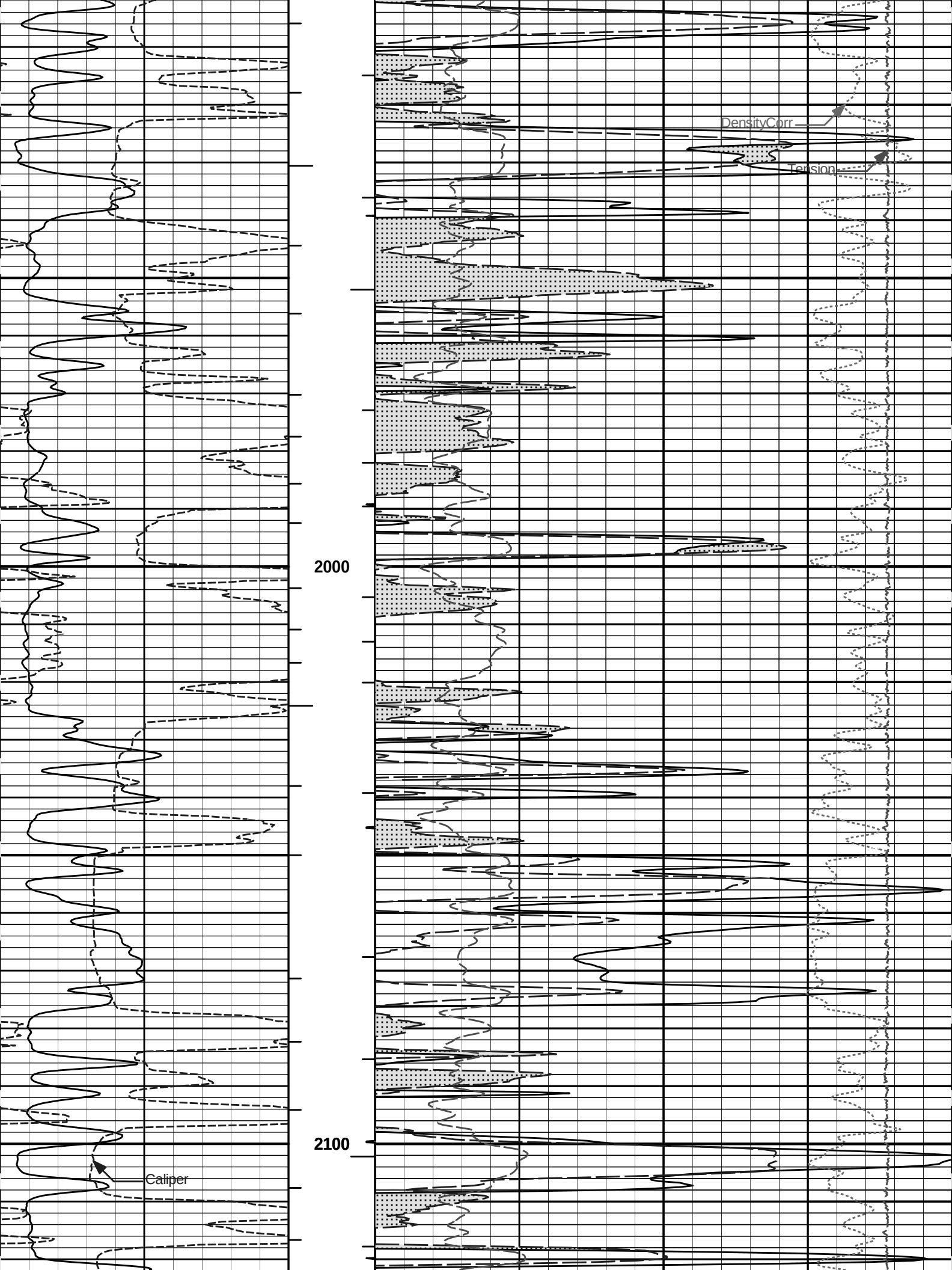
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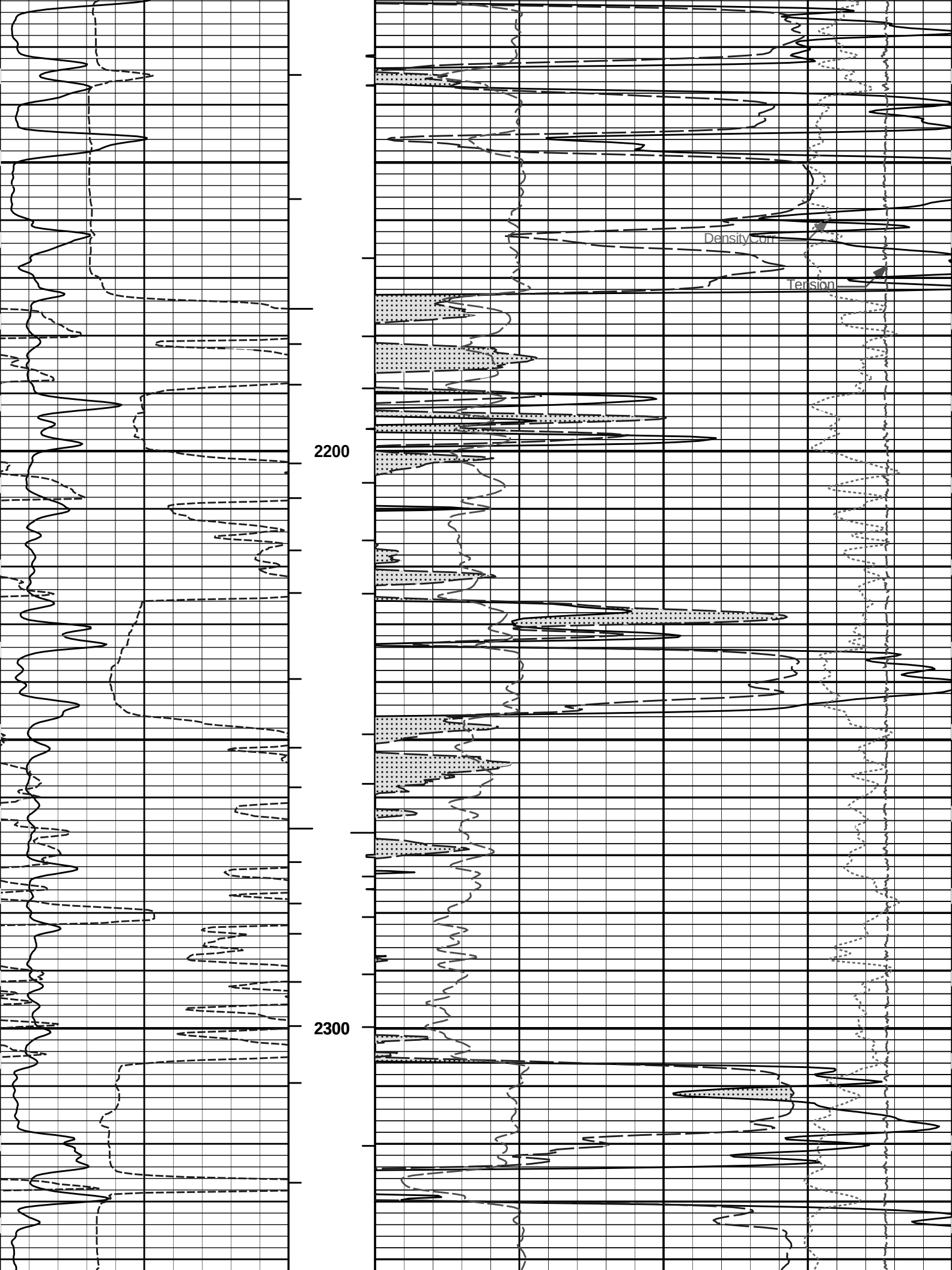
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Tension
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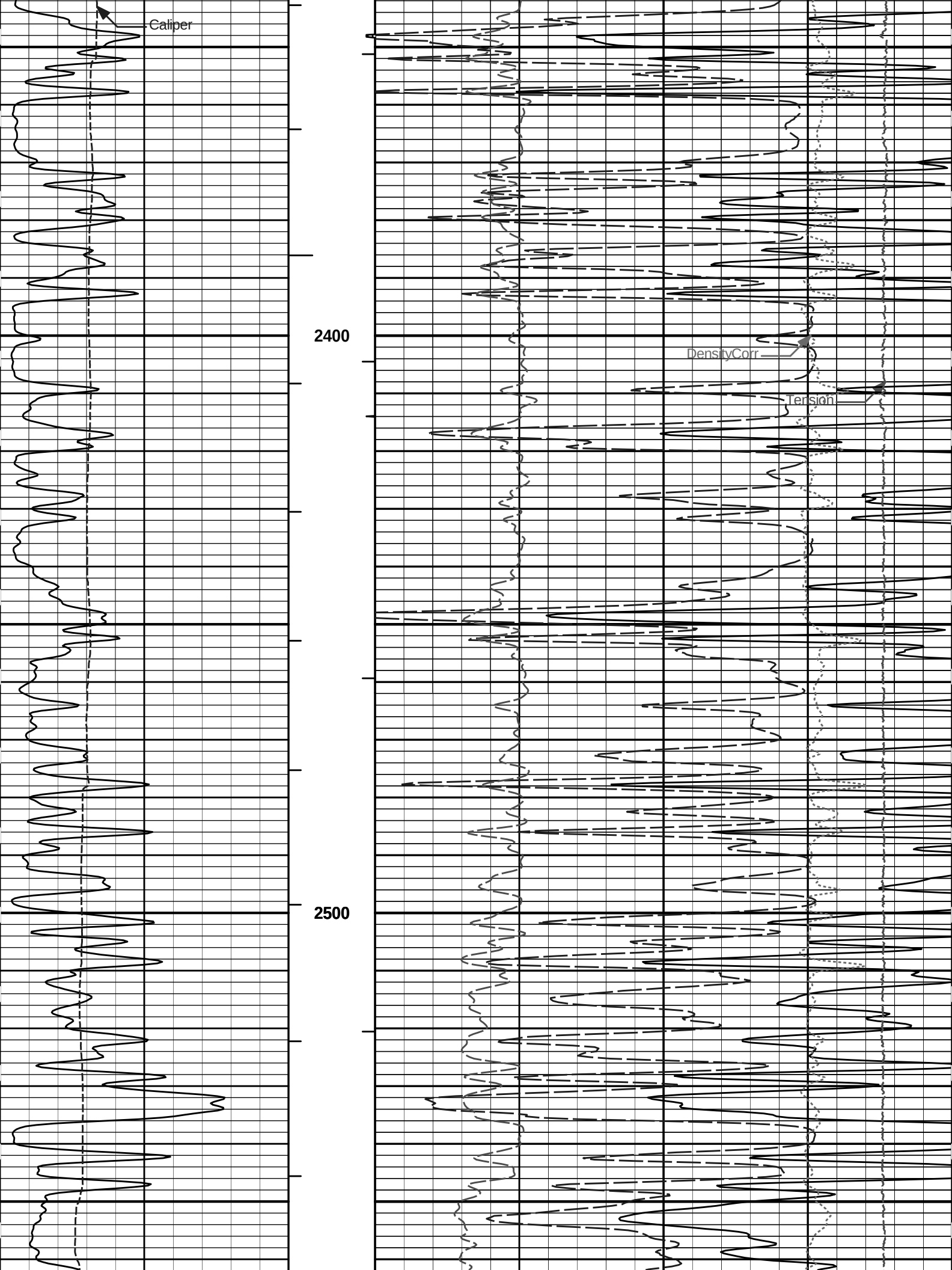
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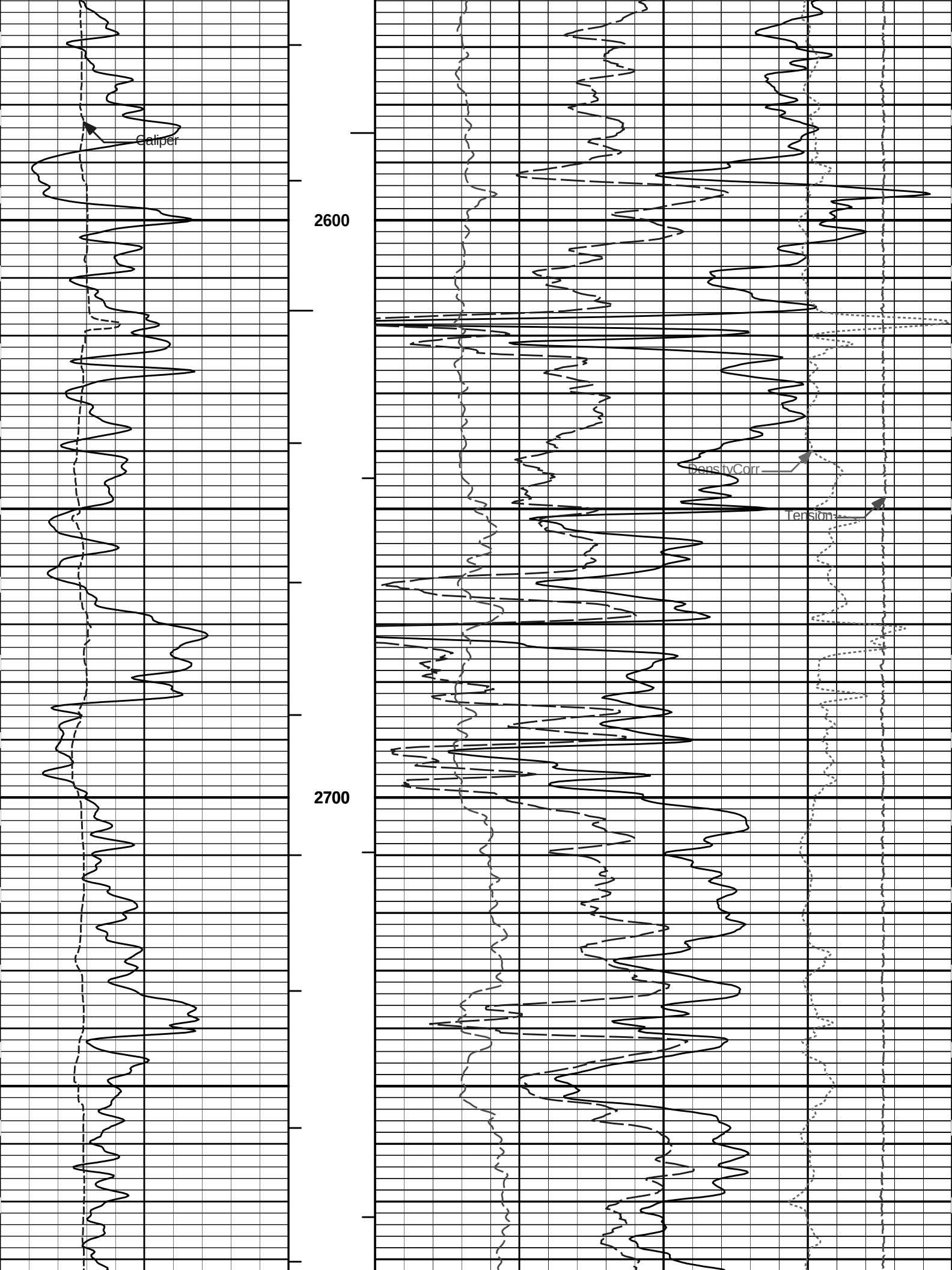
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DensityCorr
Tension
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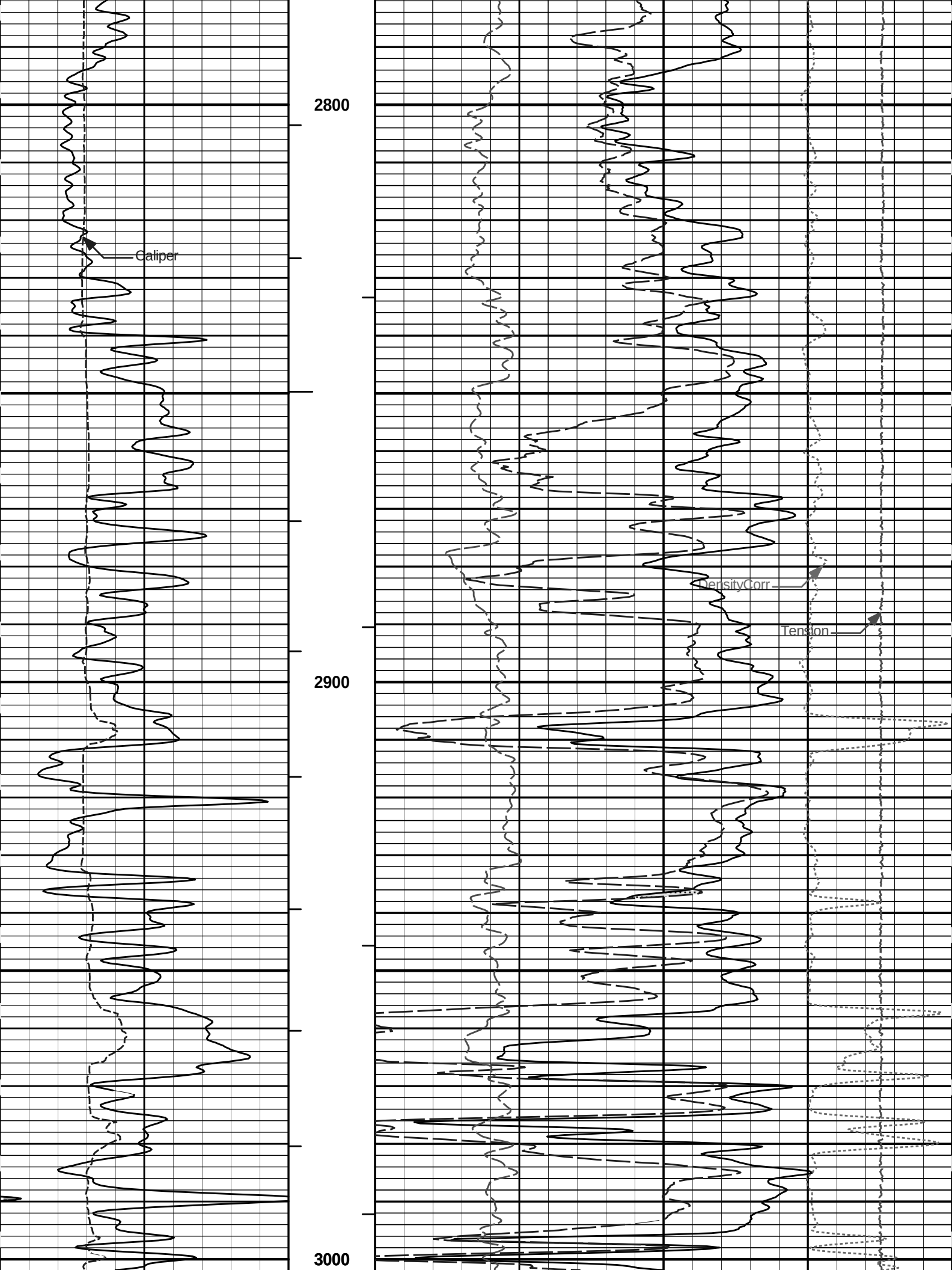
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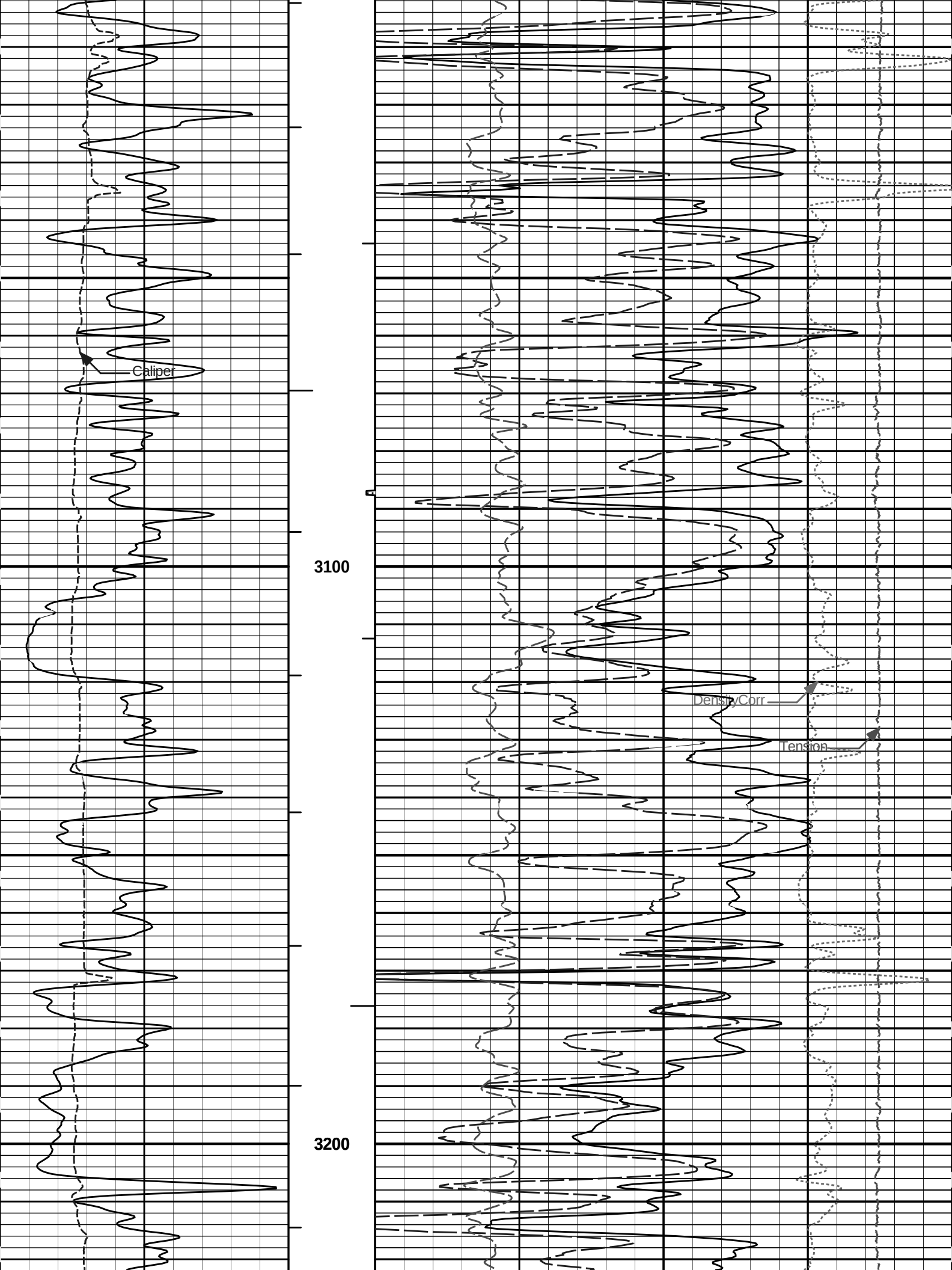
2900
3000
Caliper
DensityCorr
Tension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DensityCorr
Tension
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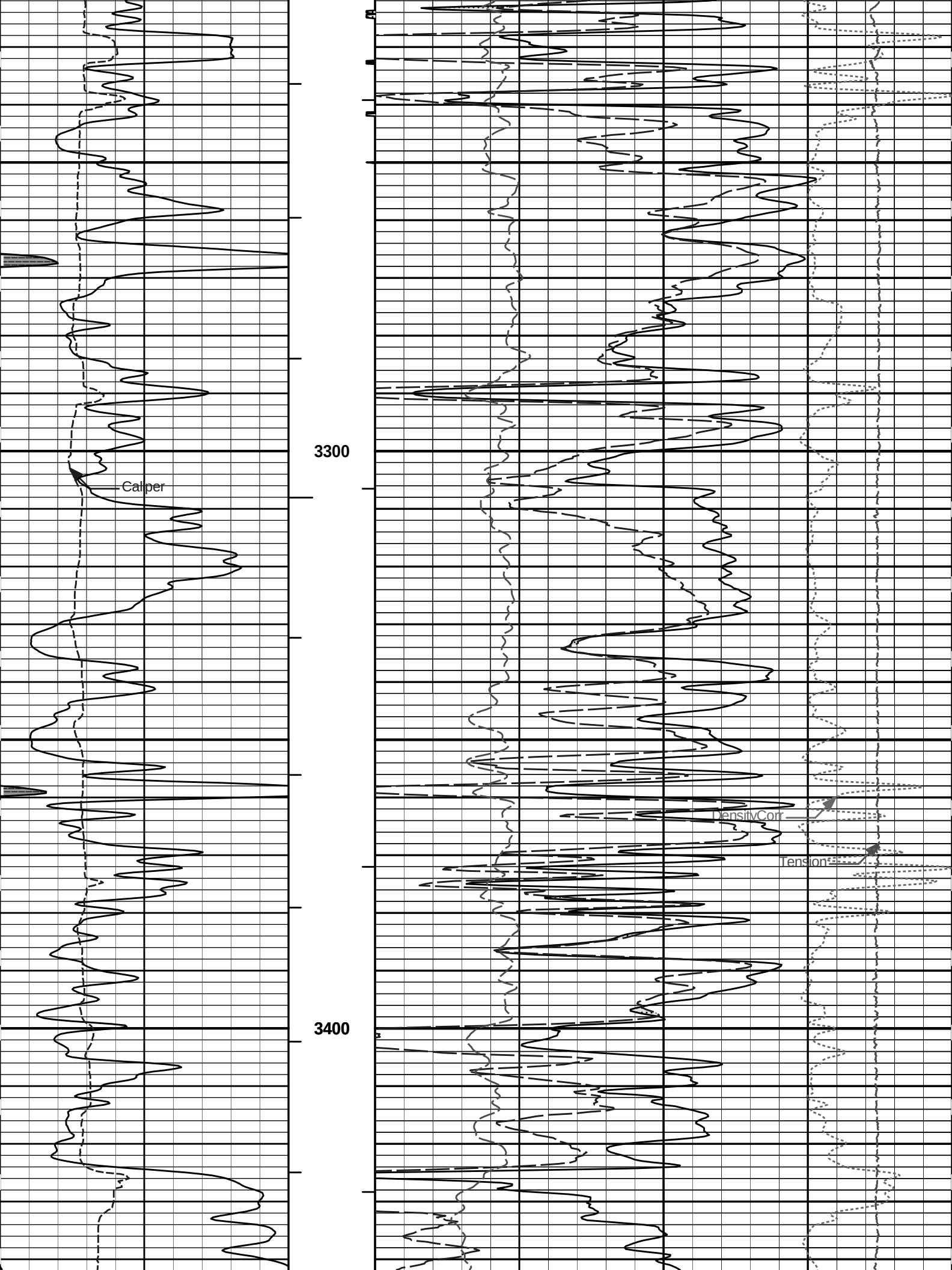
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Caliper
DensityCorr
Tension
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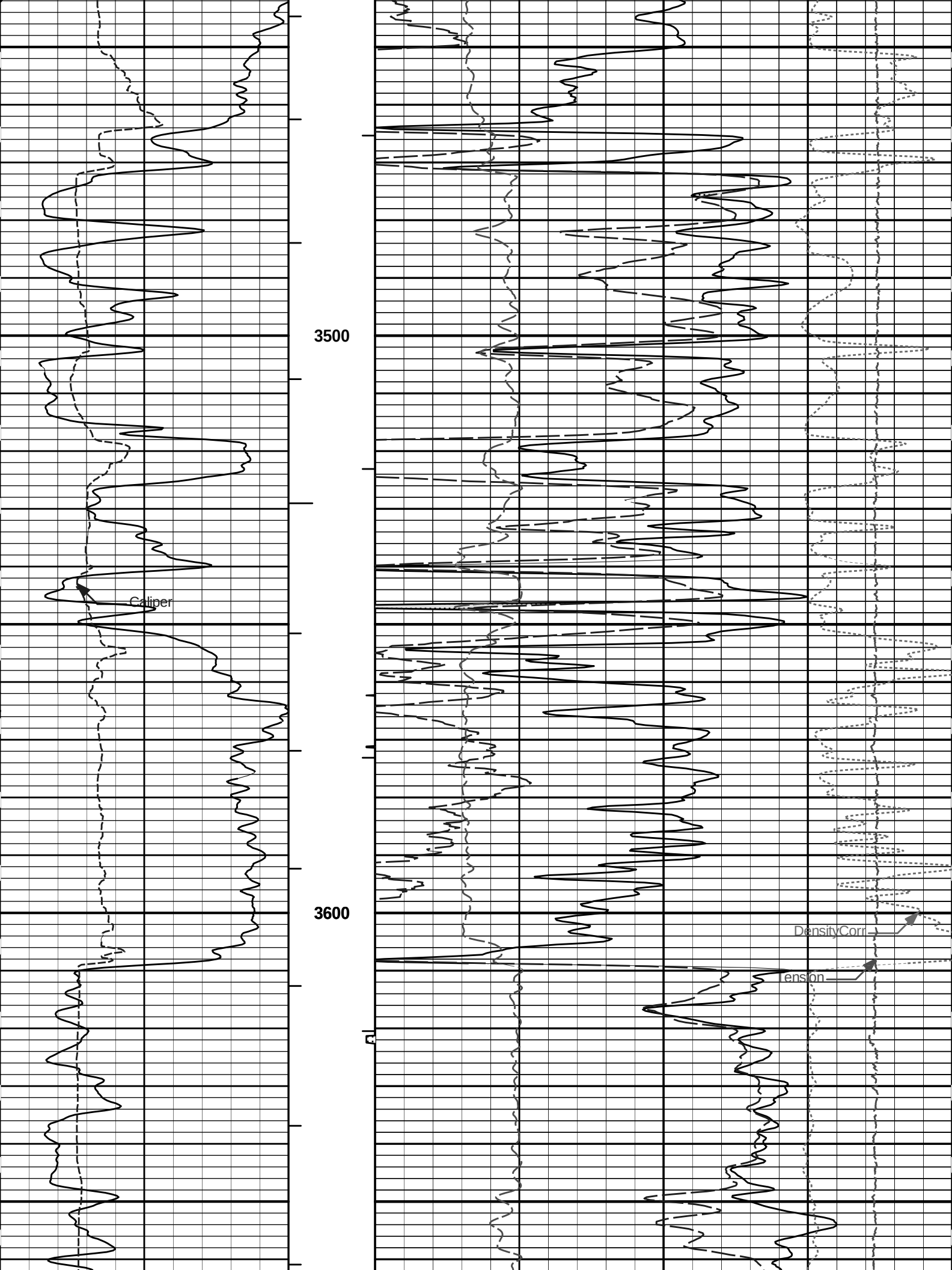
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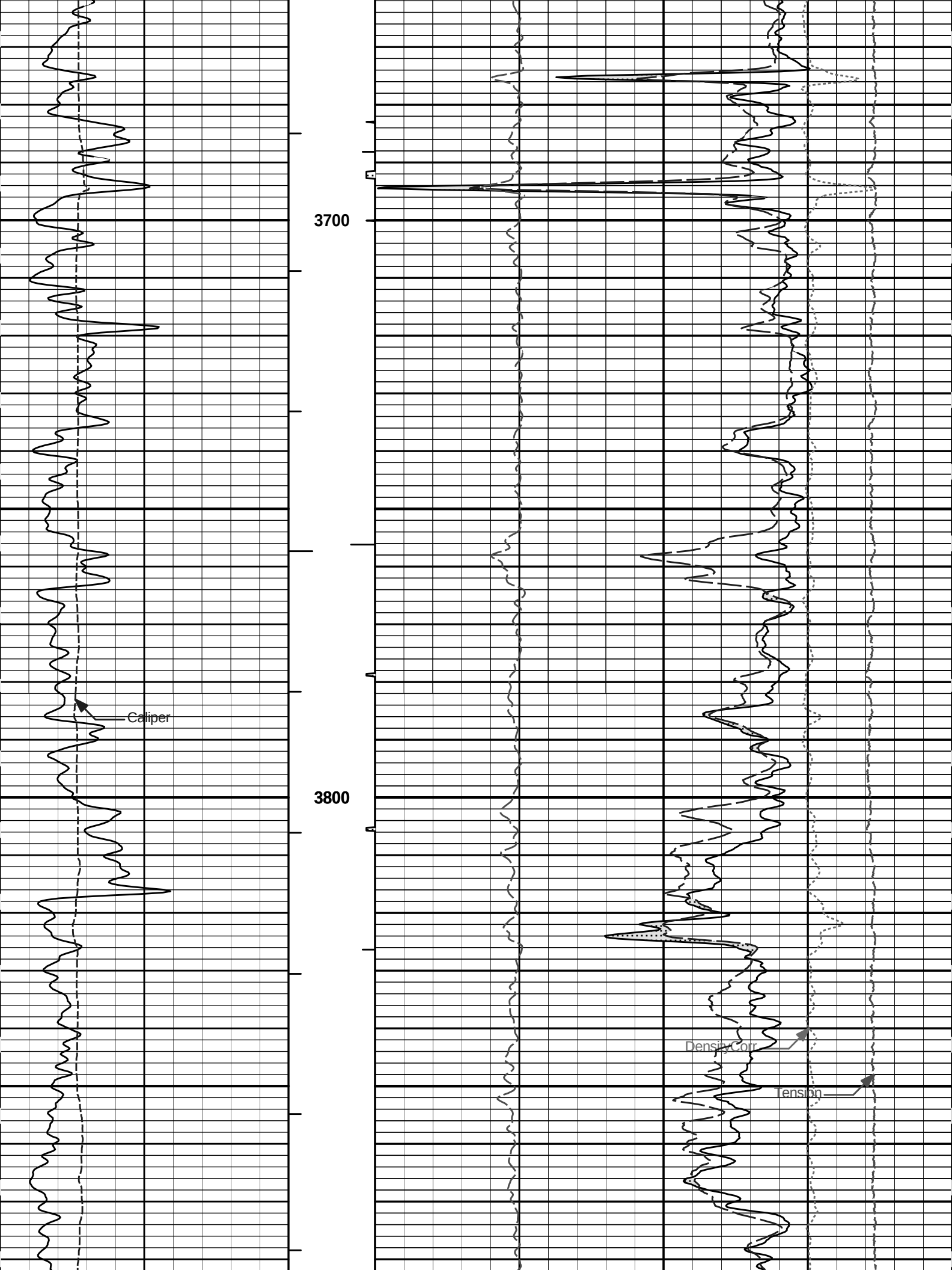
DensityCorr
Tension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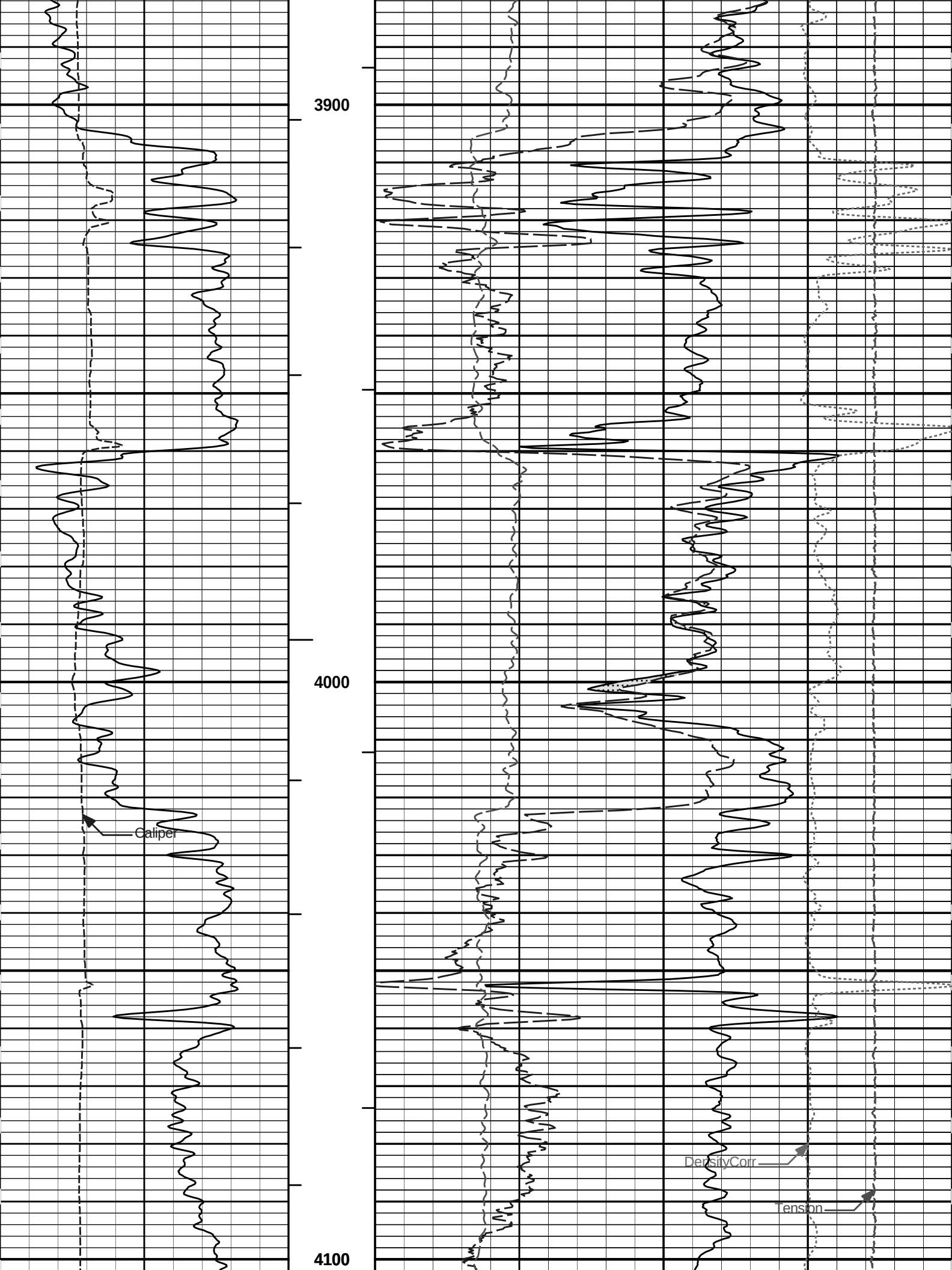
Caliper
DensityCorr
Tension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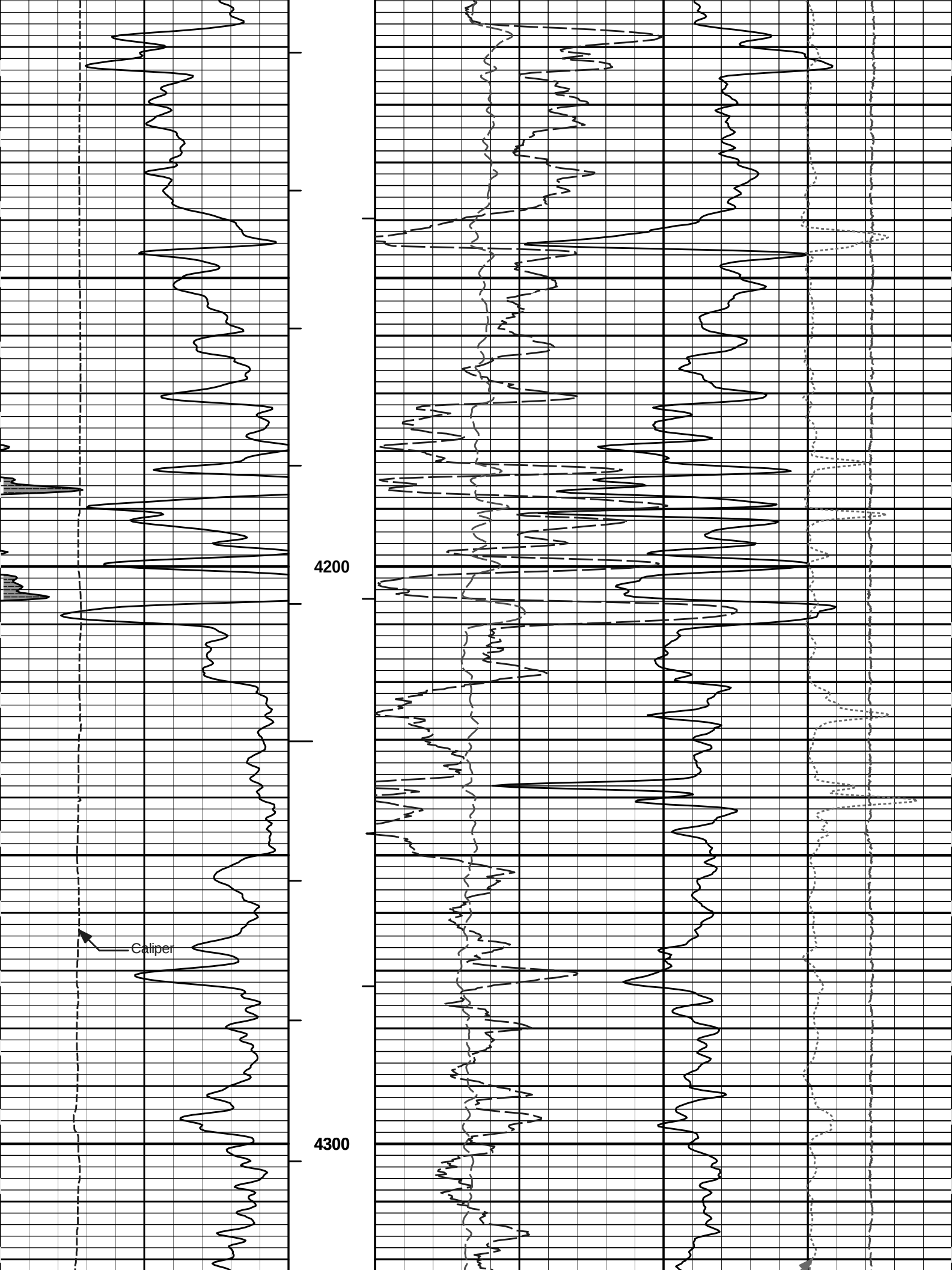
Caliper
DensityCorr
Tension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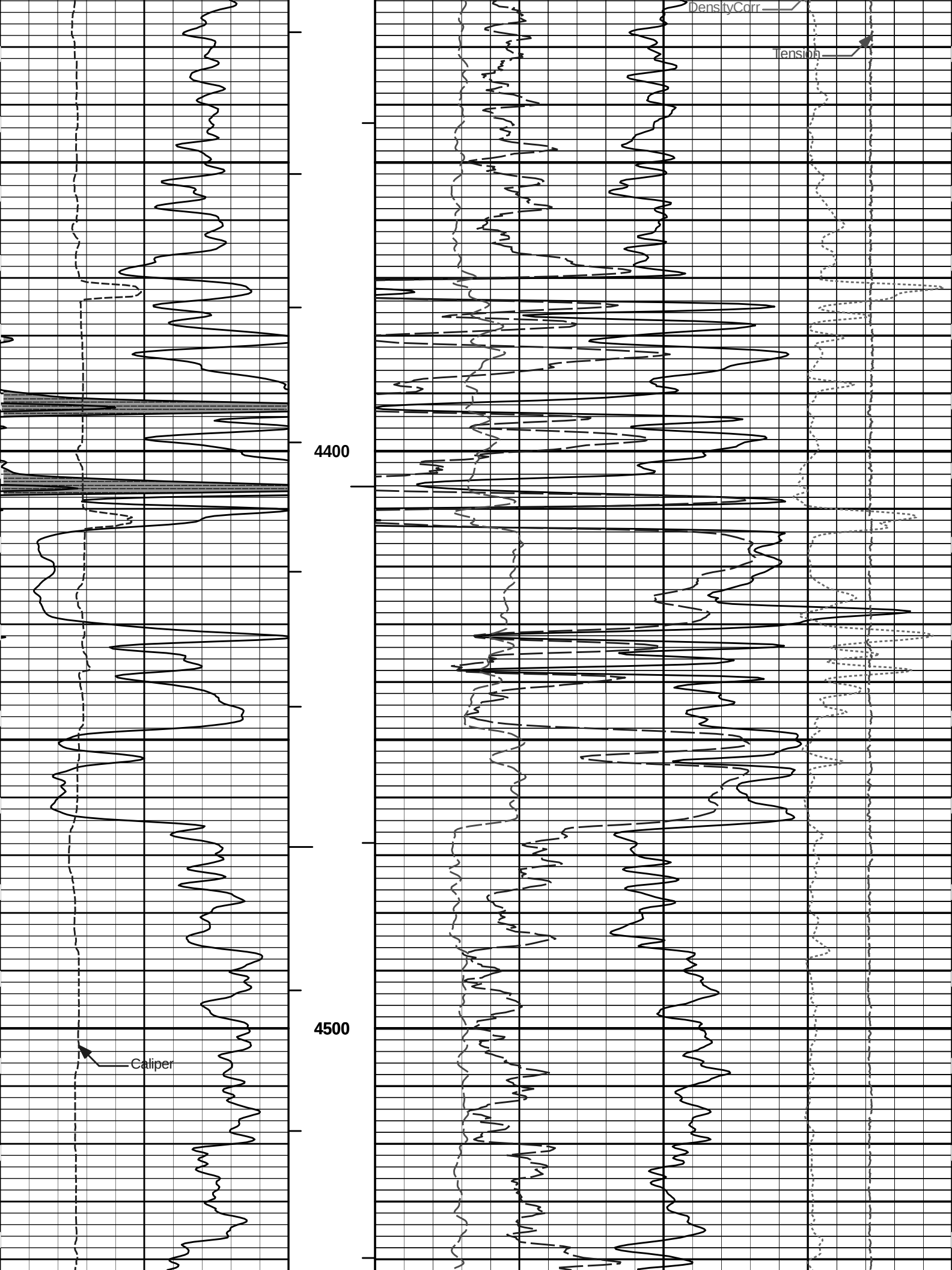
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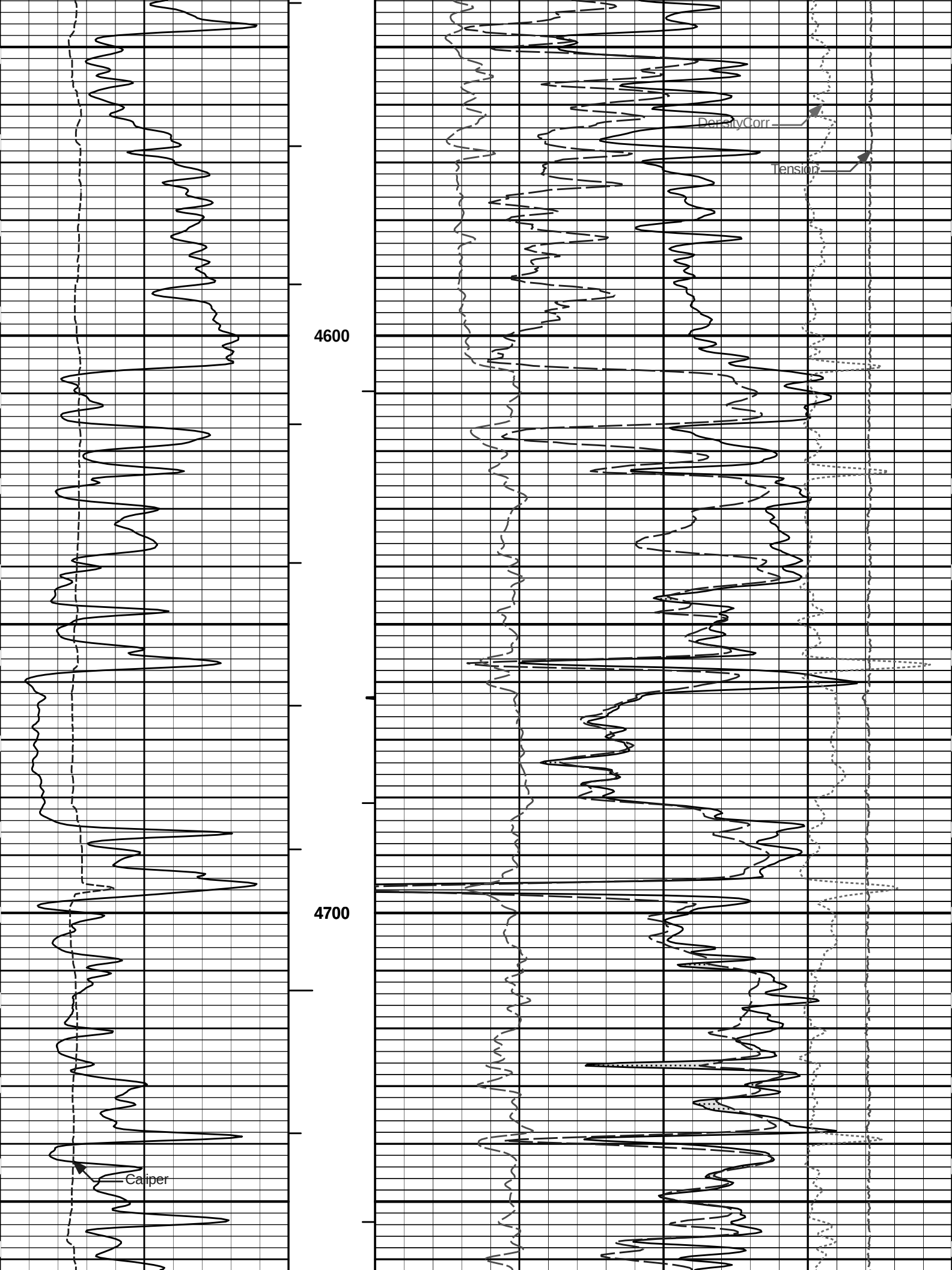
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Tension
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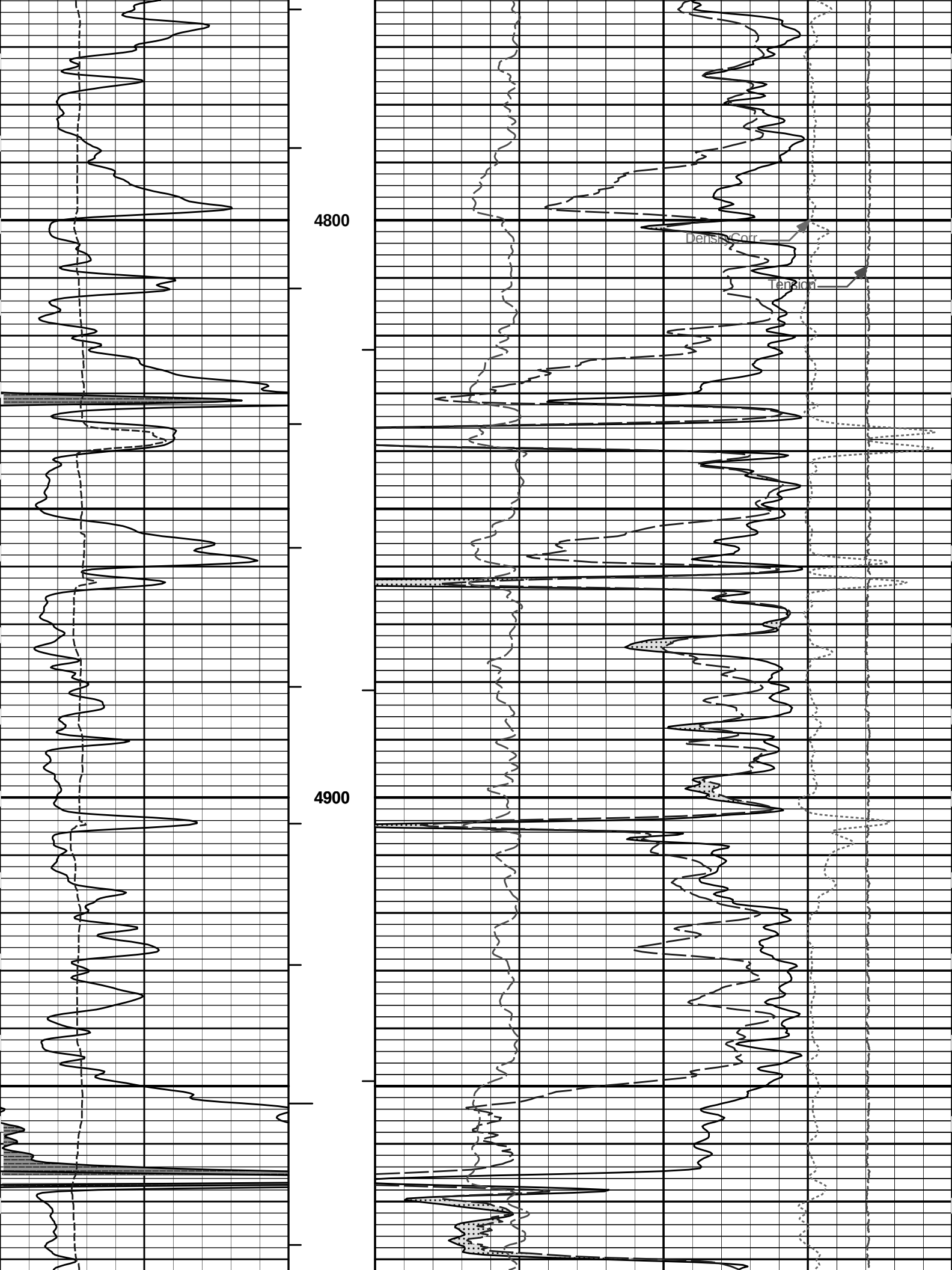
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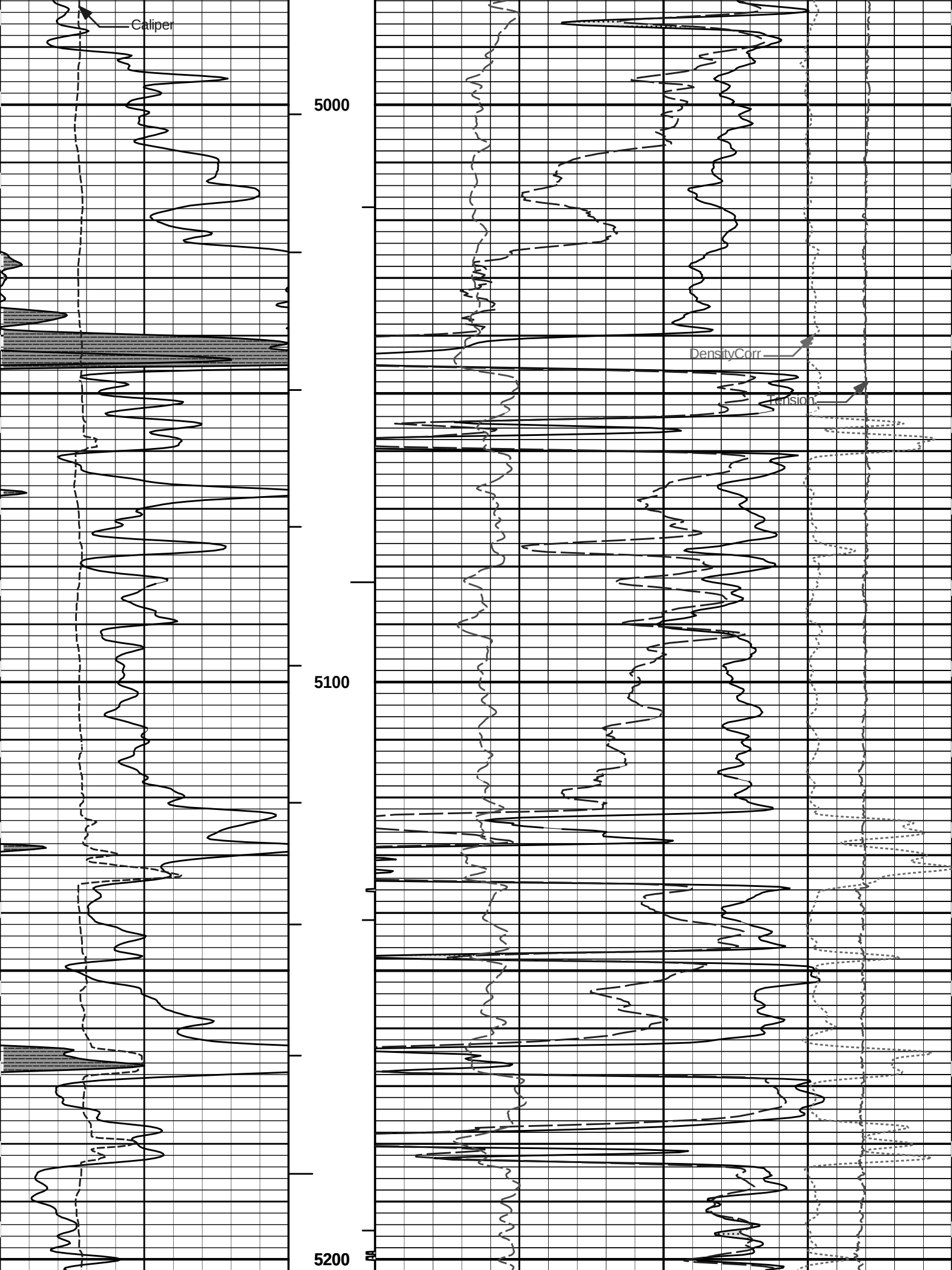
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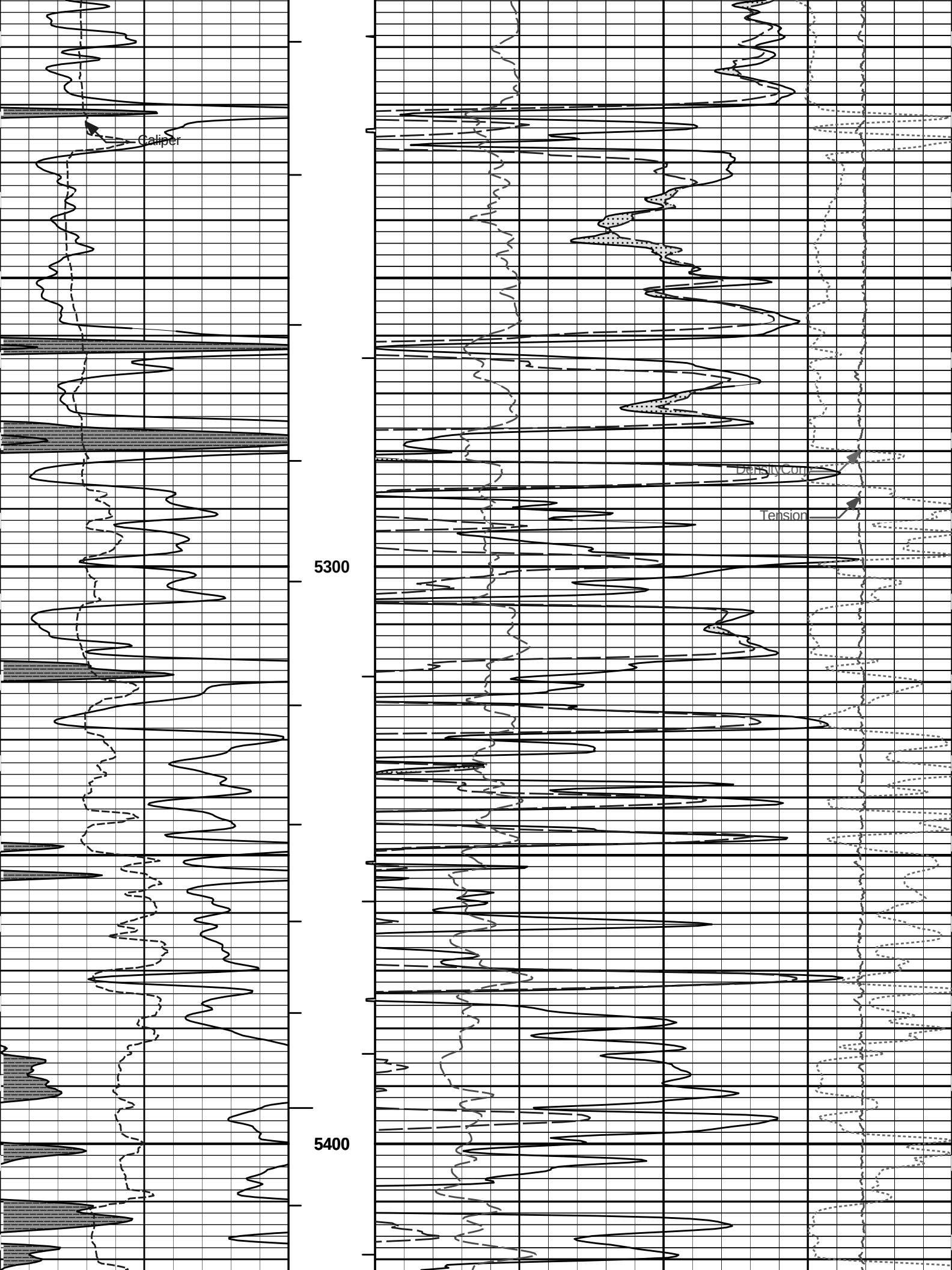
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DensityCorr
Tension
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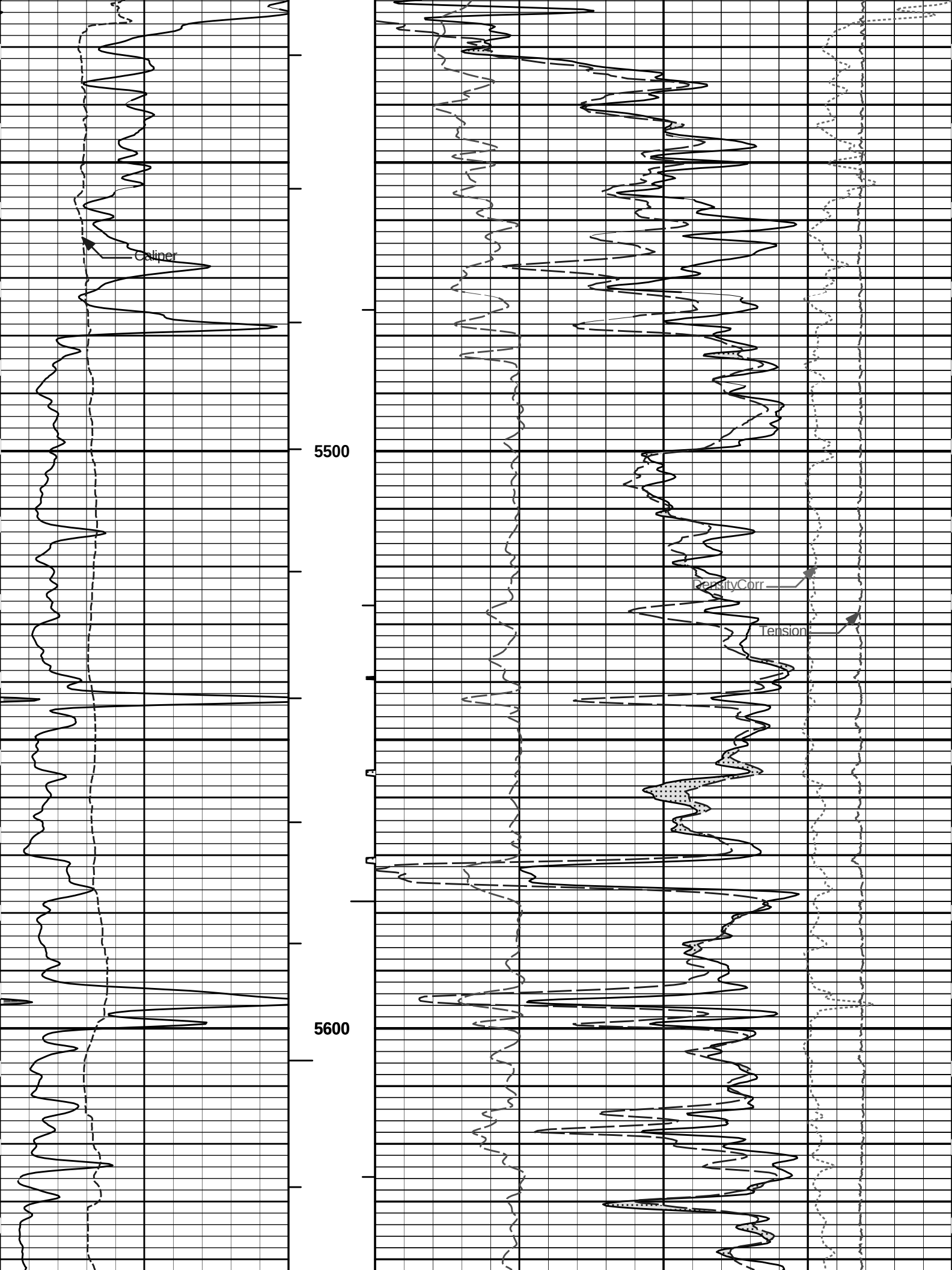
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Tension
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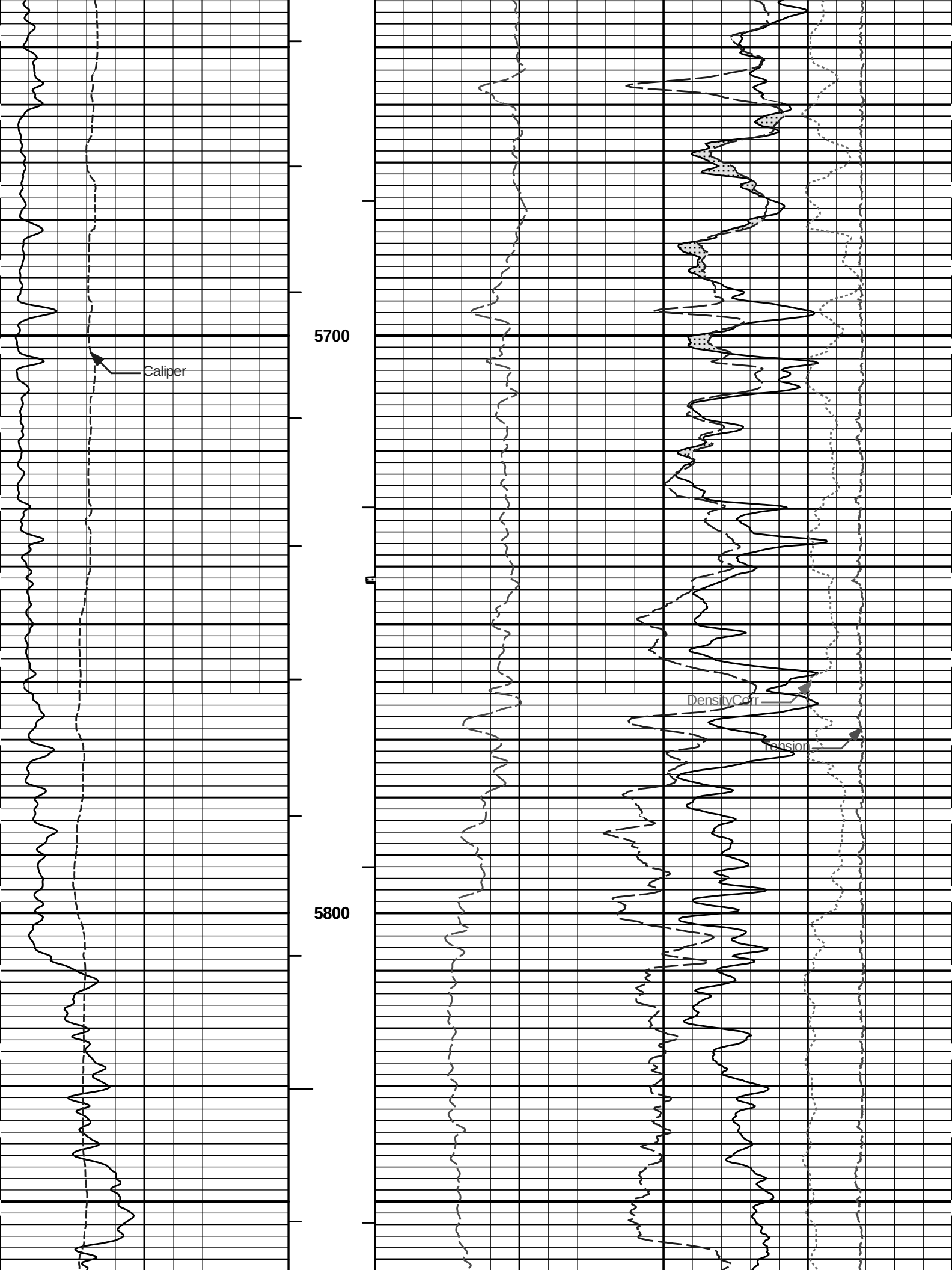
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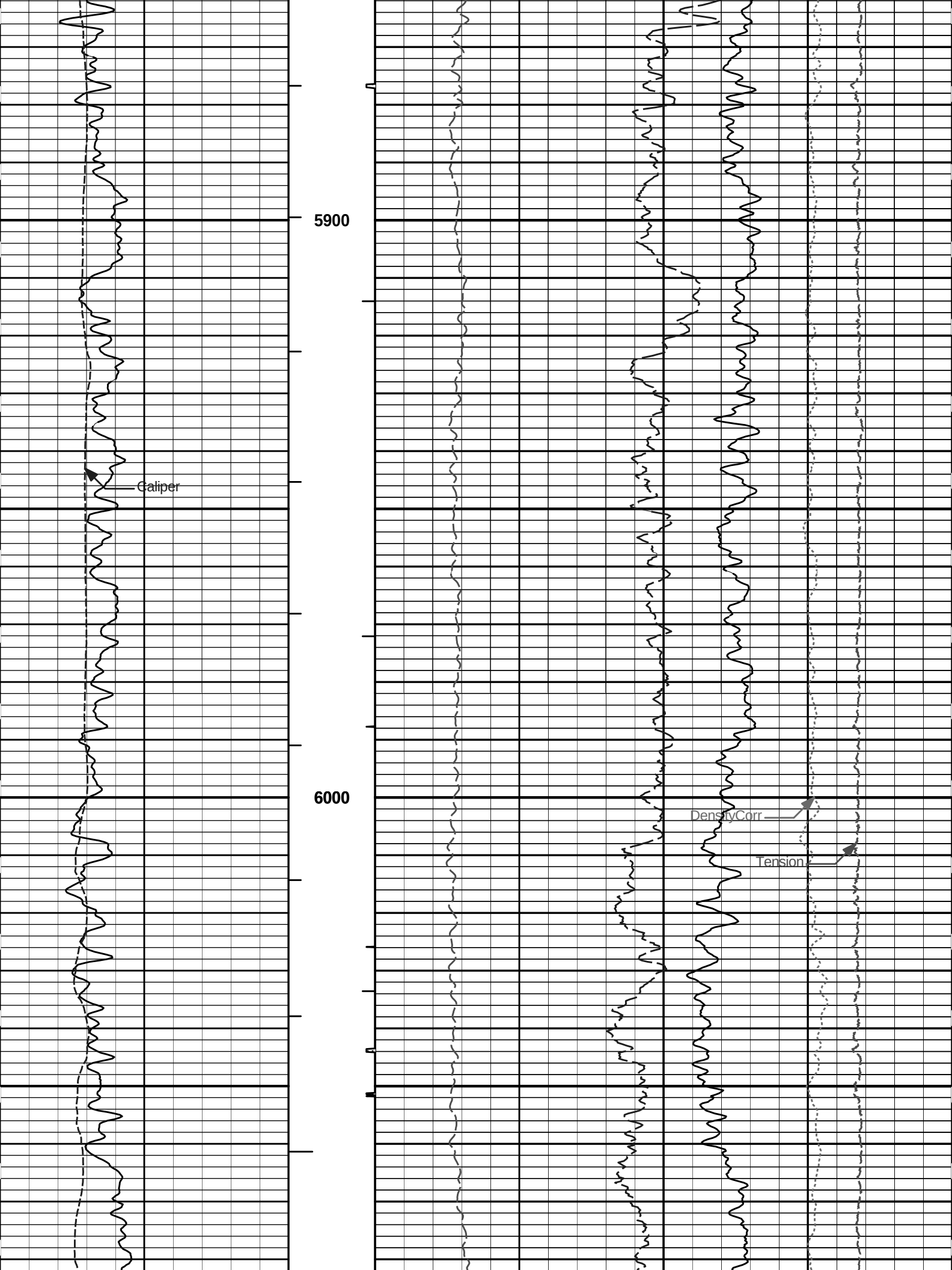
5800
Caliper
DensityCorr
Tension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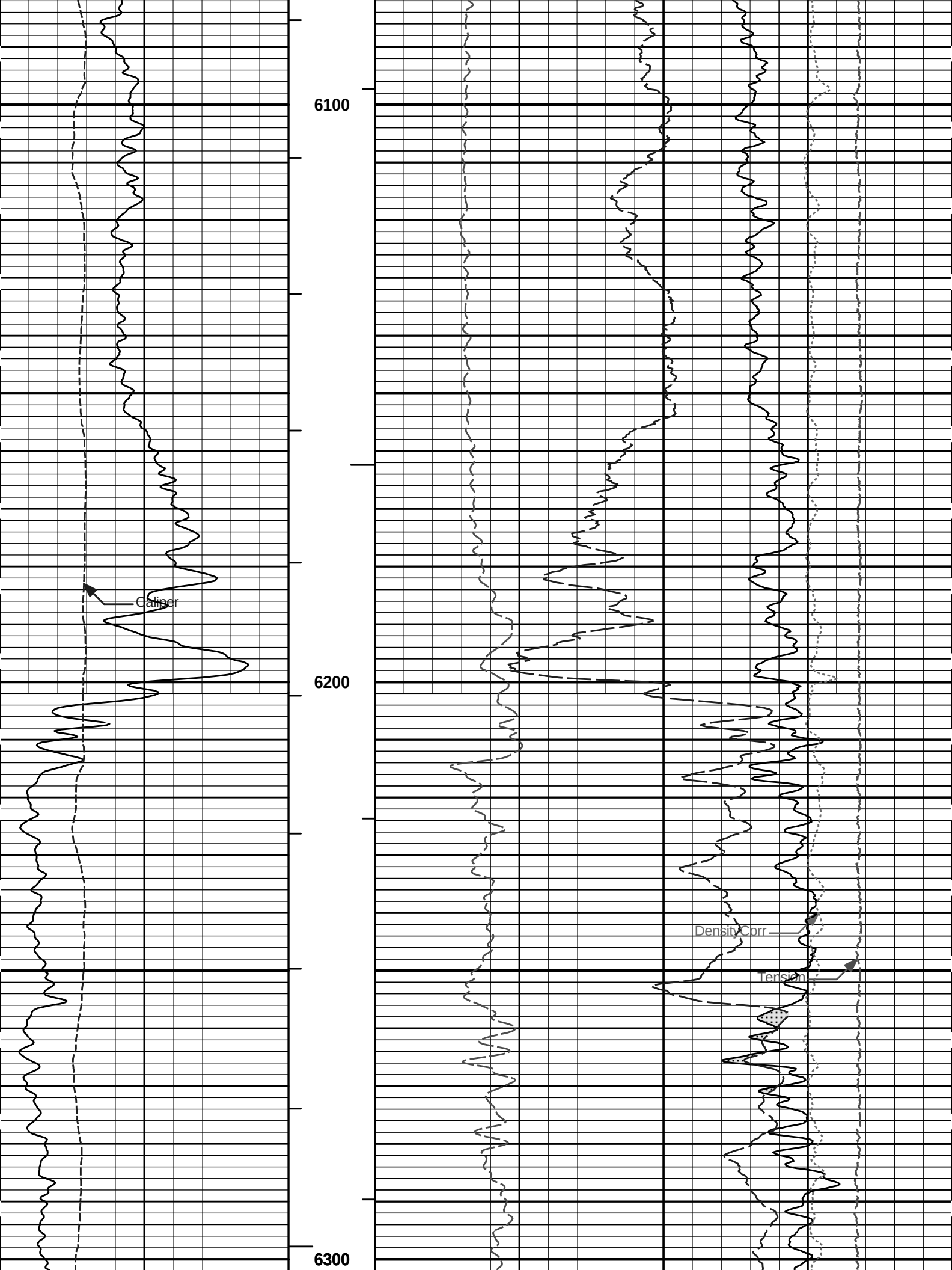
6000
Caliper
DensityCorr
Tension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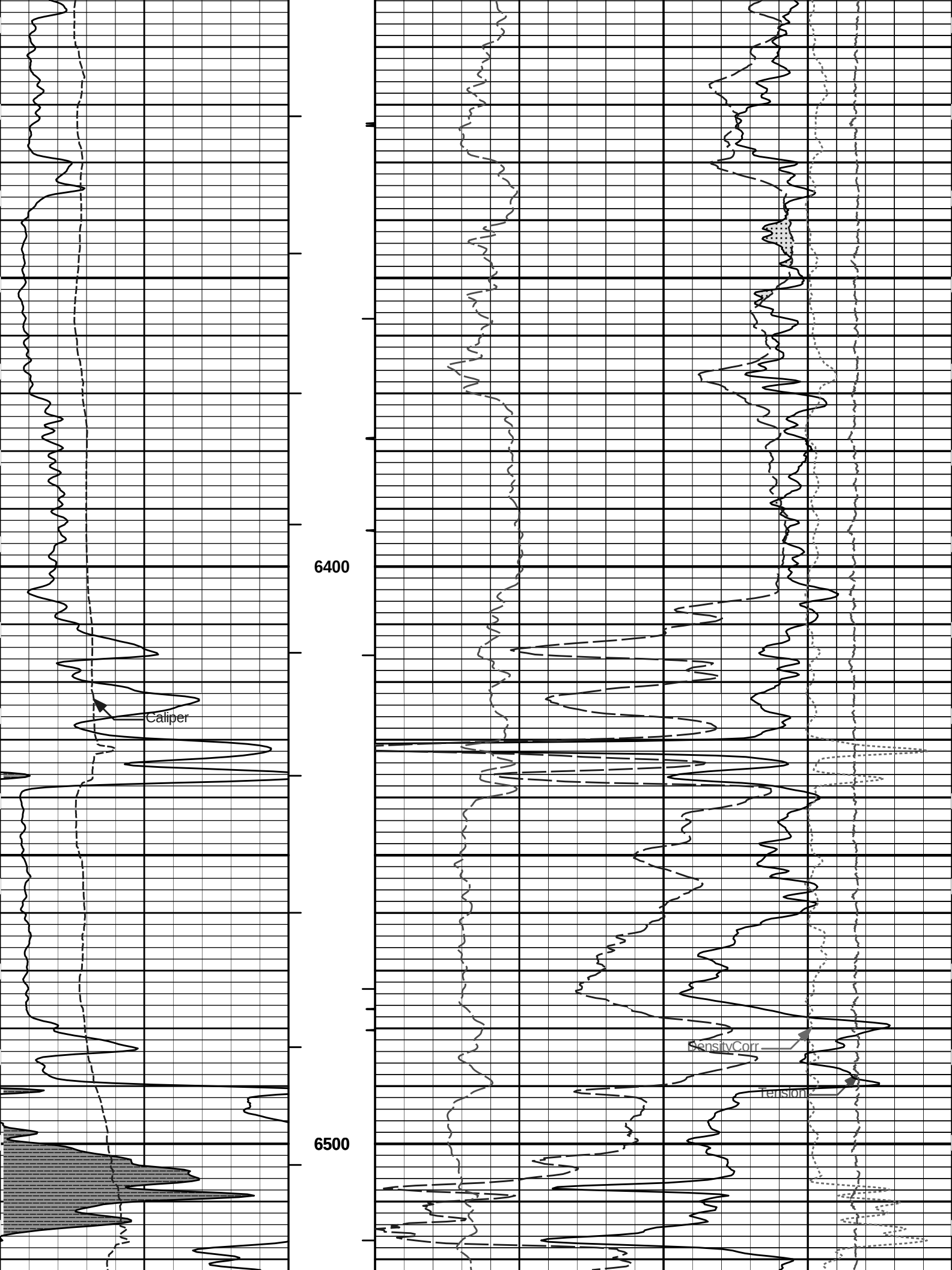
DensityCorr
Tension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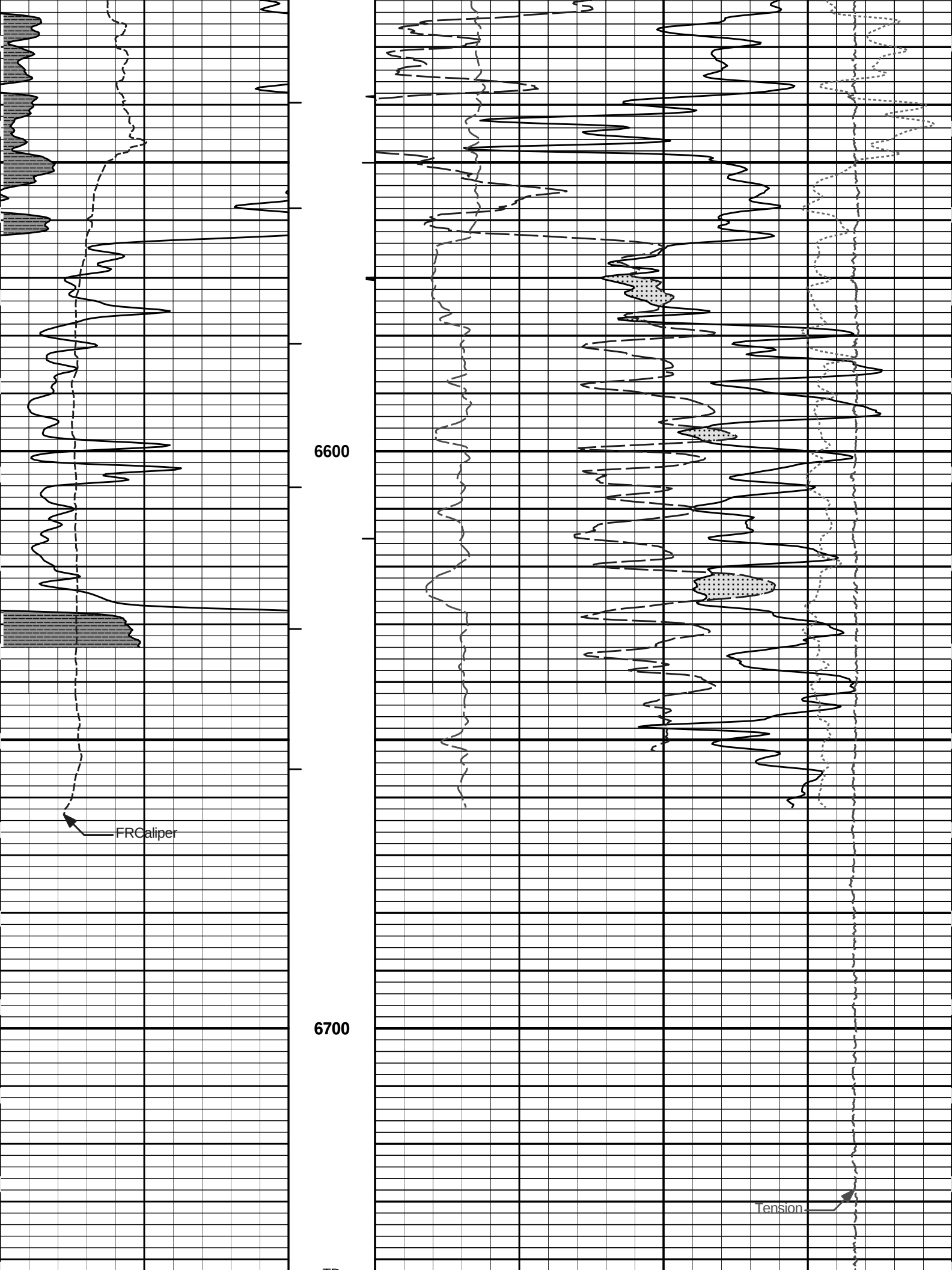
DensityCorr
Tension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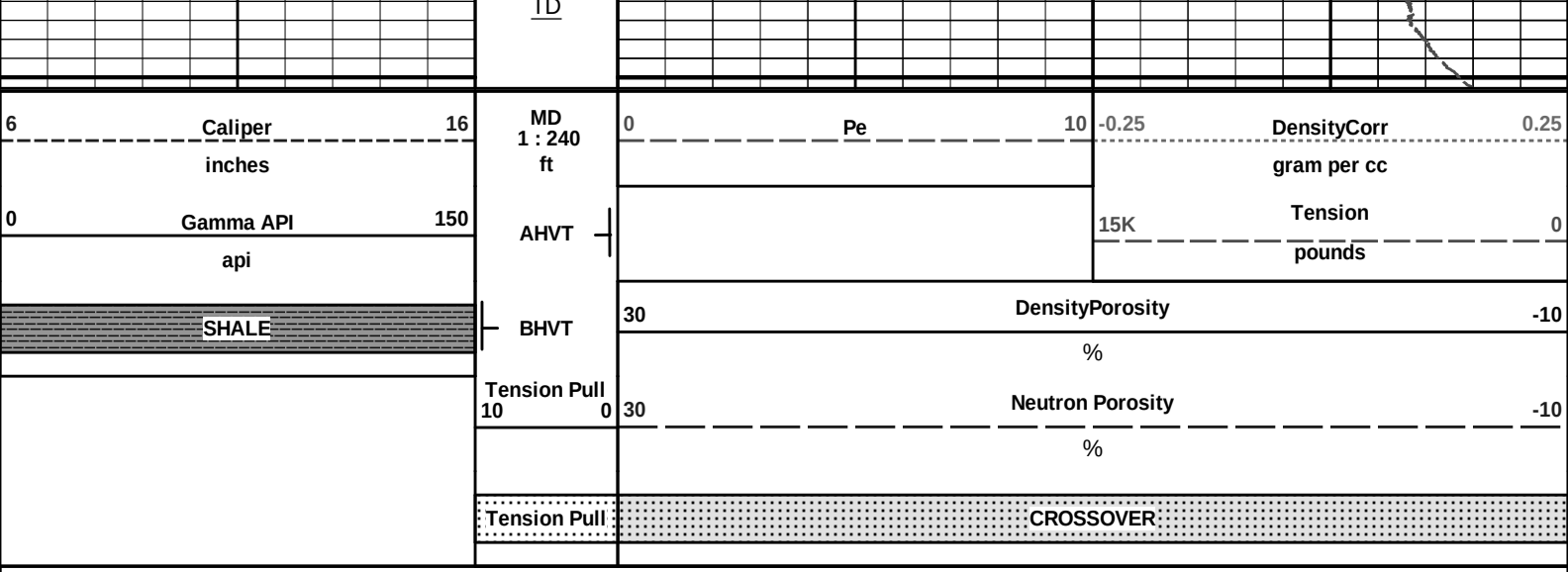
Tension



HALLIBURTON

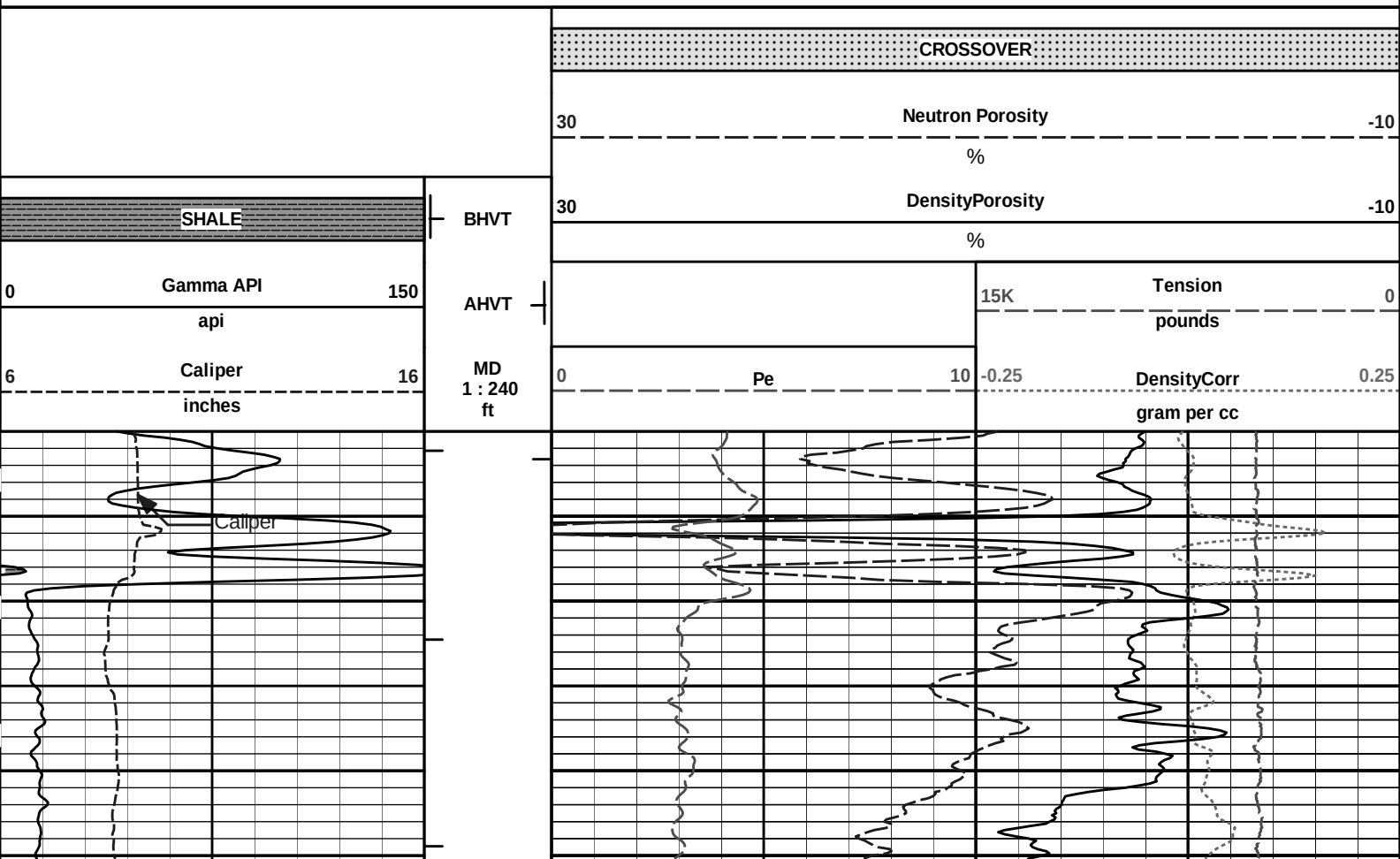
Plot Time: 15-Jun-12 22:12:27
Plot Range: 980 ft to 6751.17 ft
Data: SALT_3419_SWD14\Well Based\CASING\
Plot File: \\PORO\Poro_IQ_5_MAIN_LIB

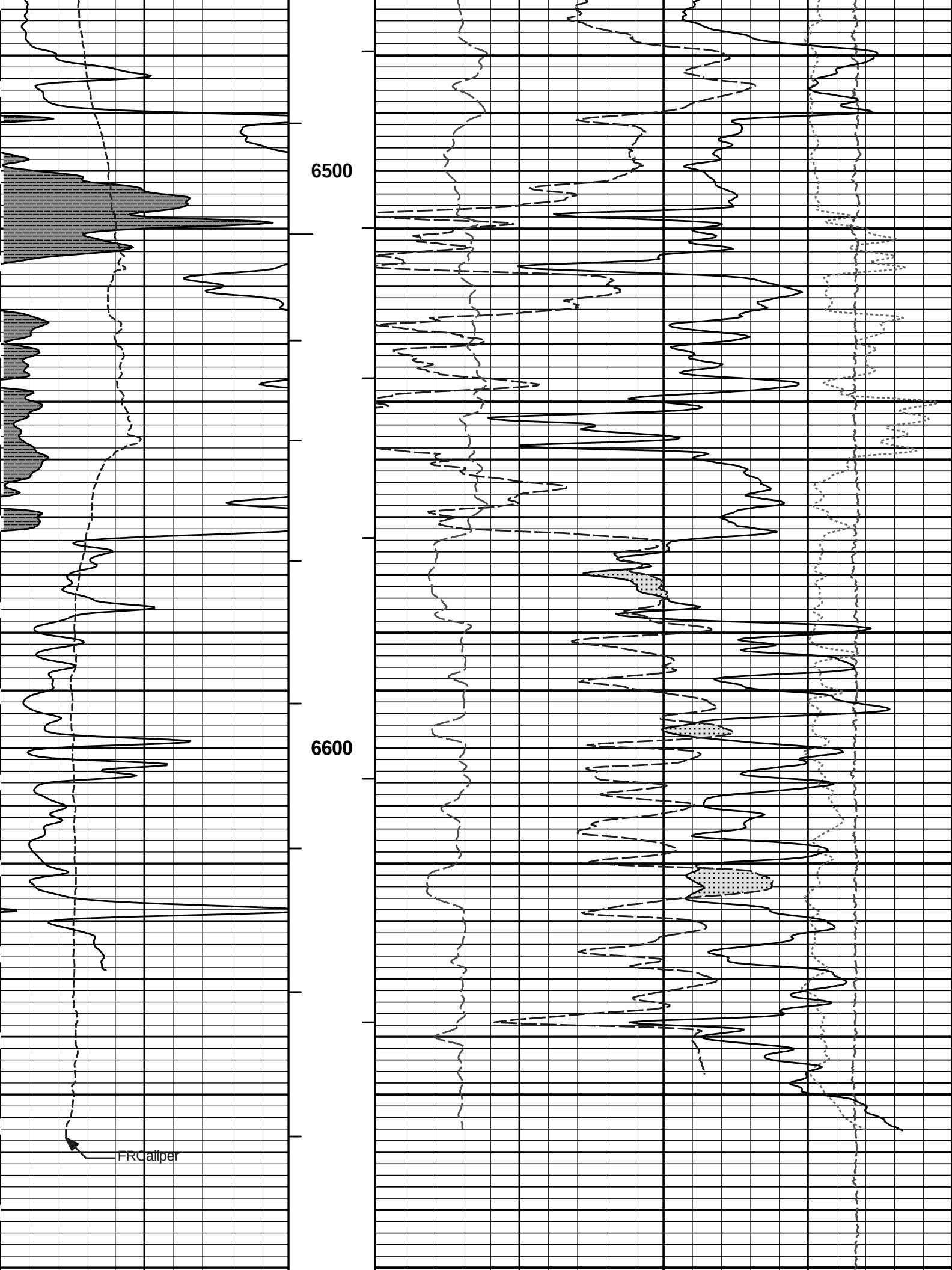
5 INCH MAIN LOG

HALLIBURTON

Plot Time: 15-Jun-12 22:12:27
Plot Range: 6420 ft to 6755.67 ft
Data: SALT_3419_SWD14\Well Based\REPEAT\
Plot File: \\PORO\Poro_IQ_5_REP_LIB

REPEAT SECTION

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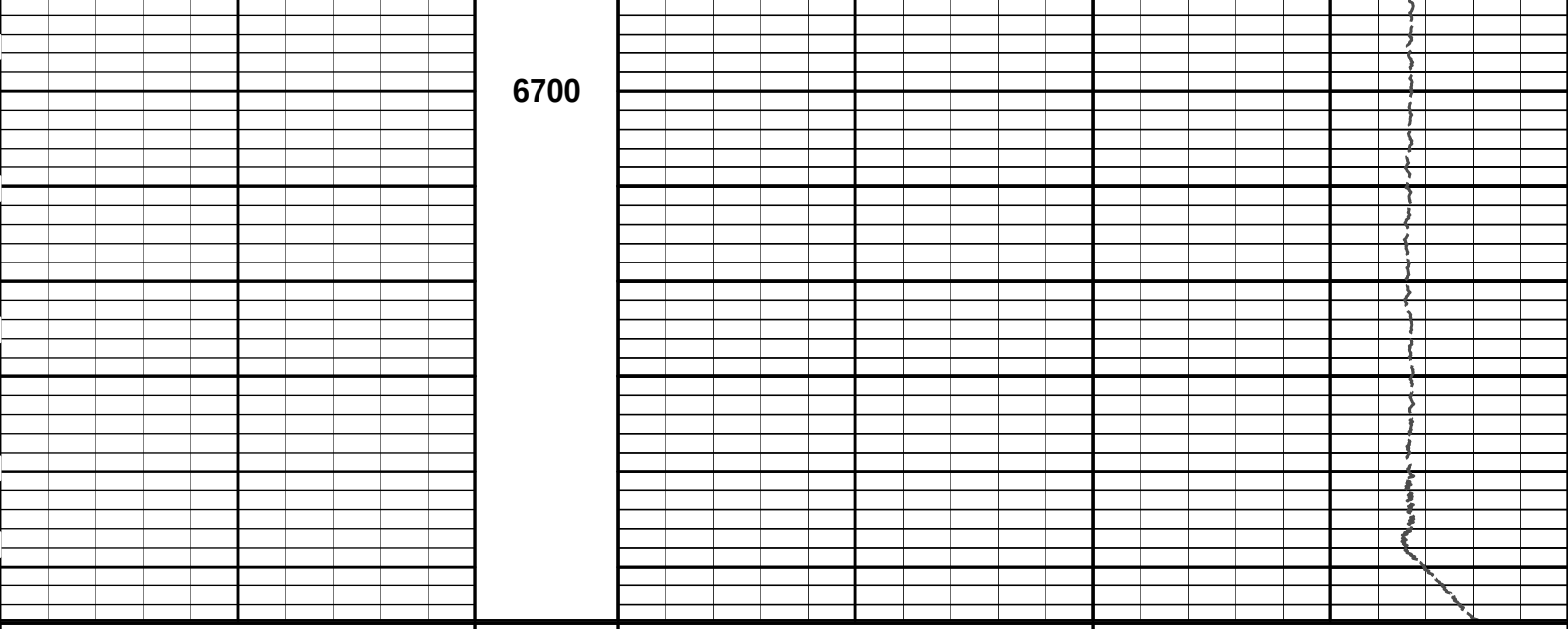

HALLIBURTON

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REPEAT SECTION

HALLIBURTON

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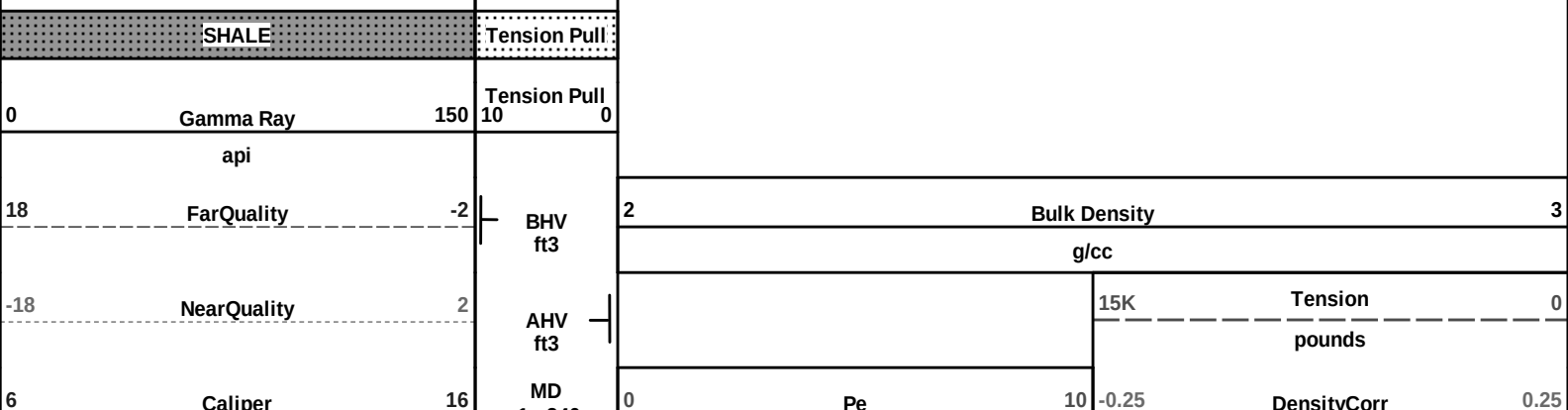
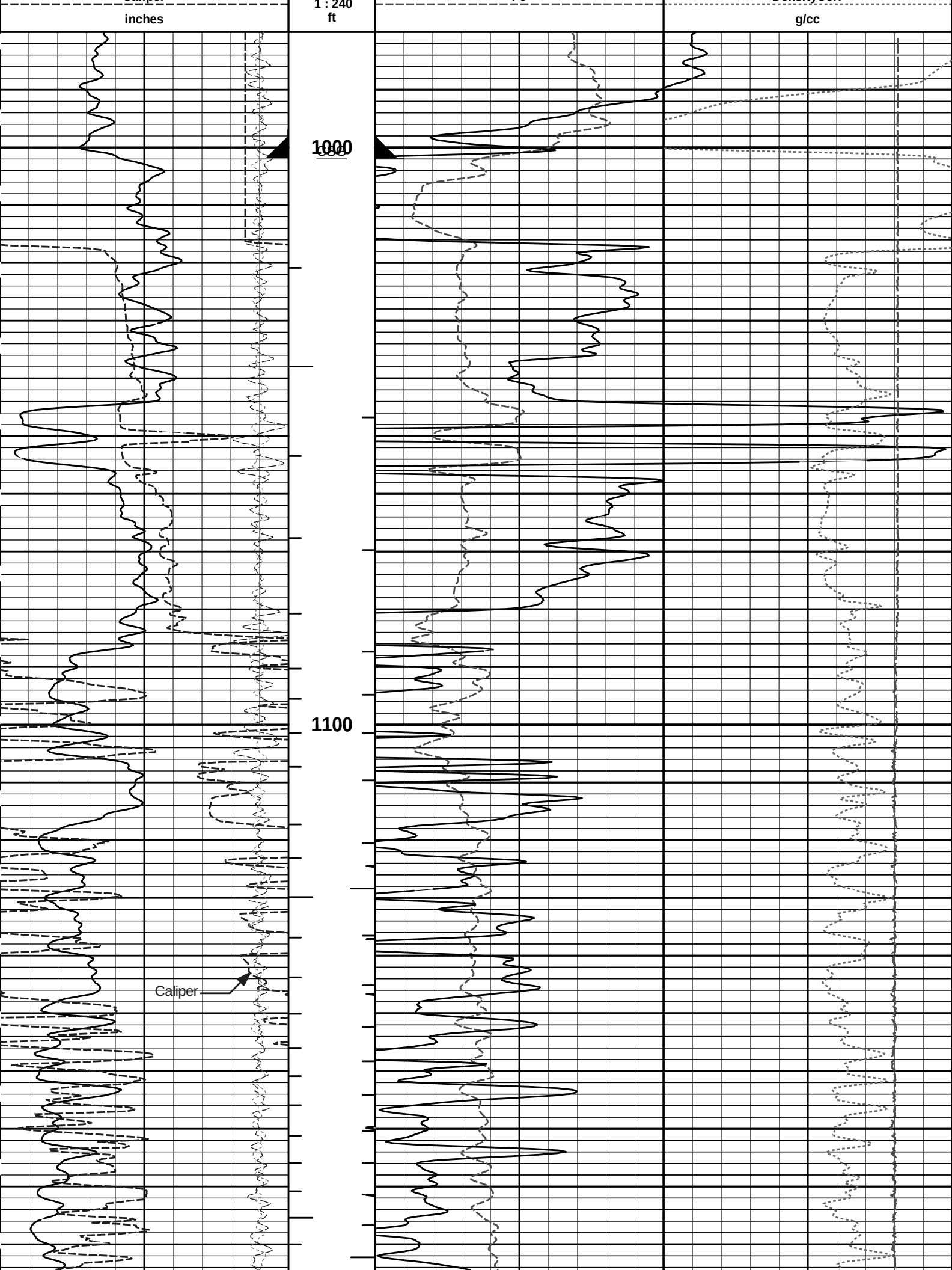
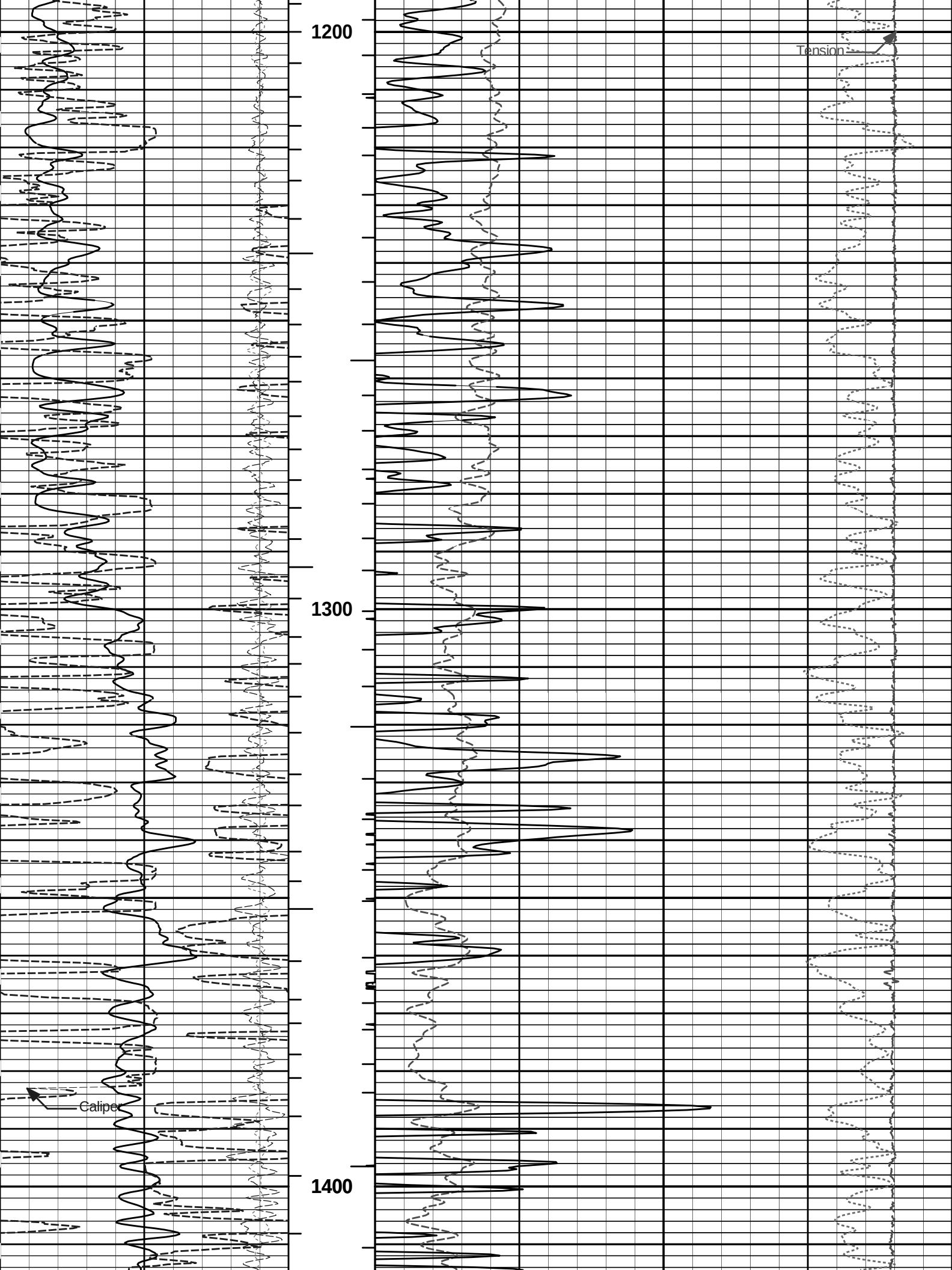
5 INCH MAIN LOG




Caliper
inches
1 : 240
ft
g/cc
1000
1100
Caliper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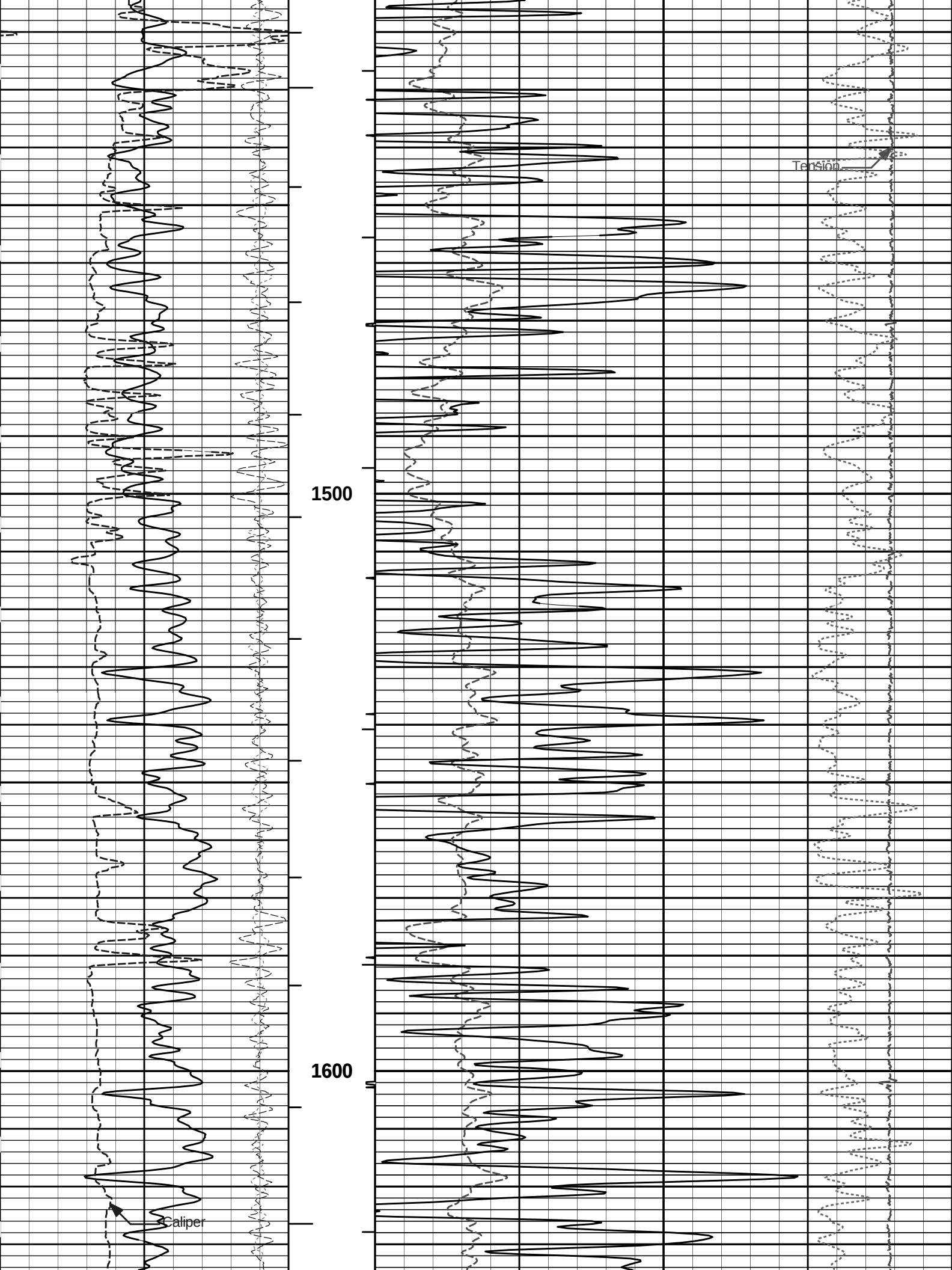
Caliper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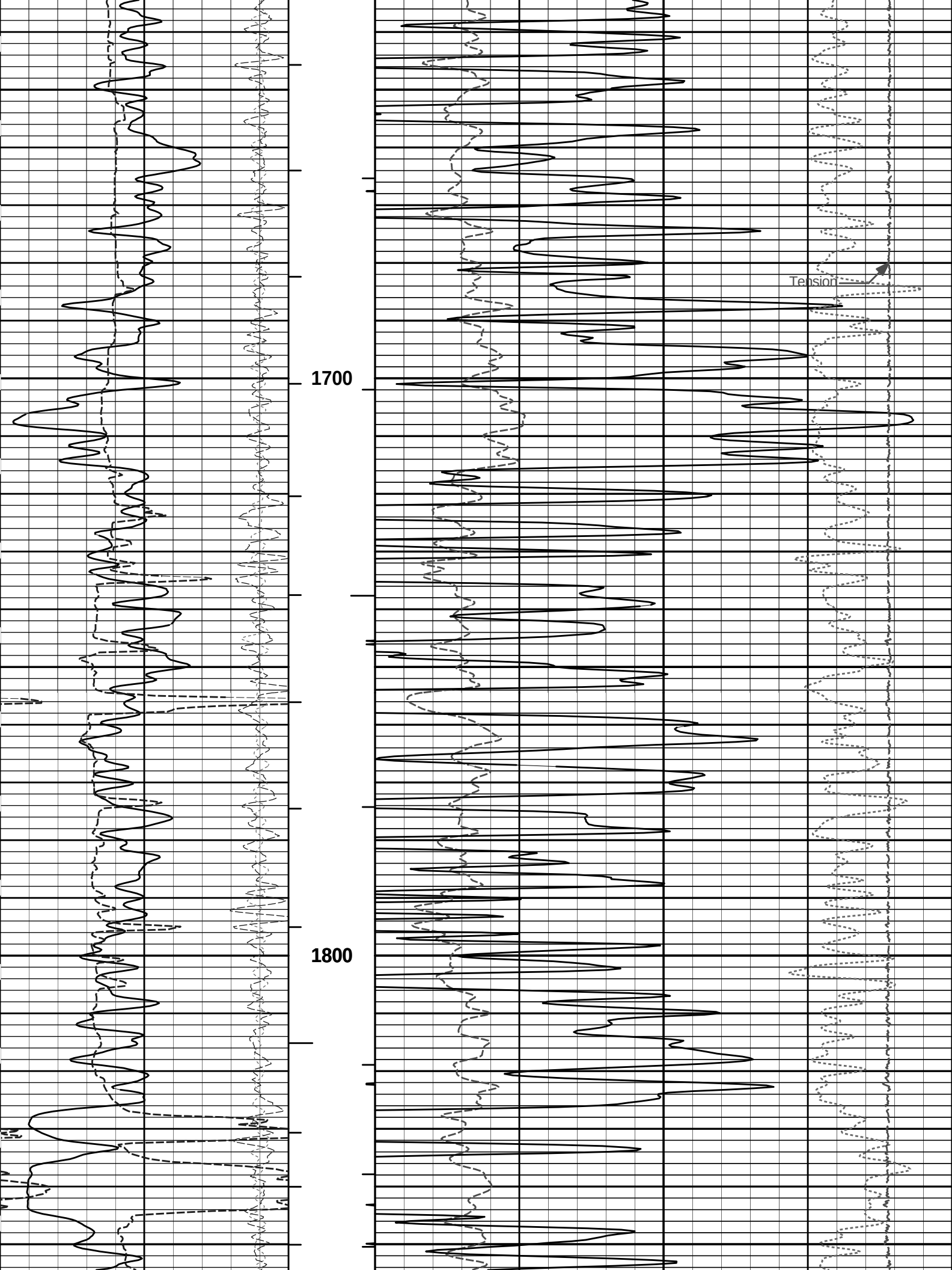
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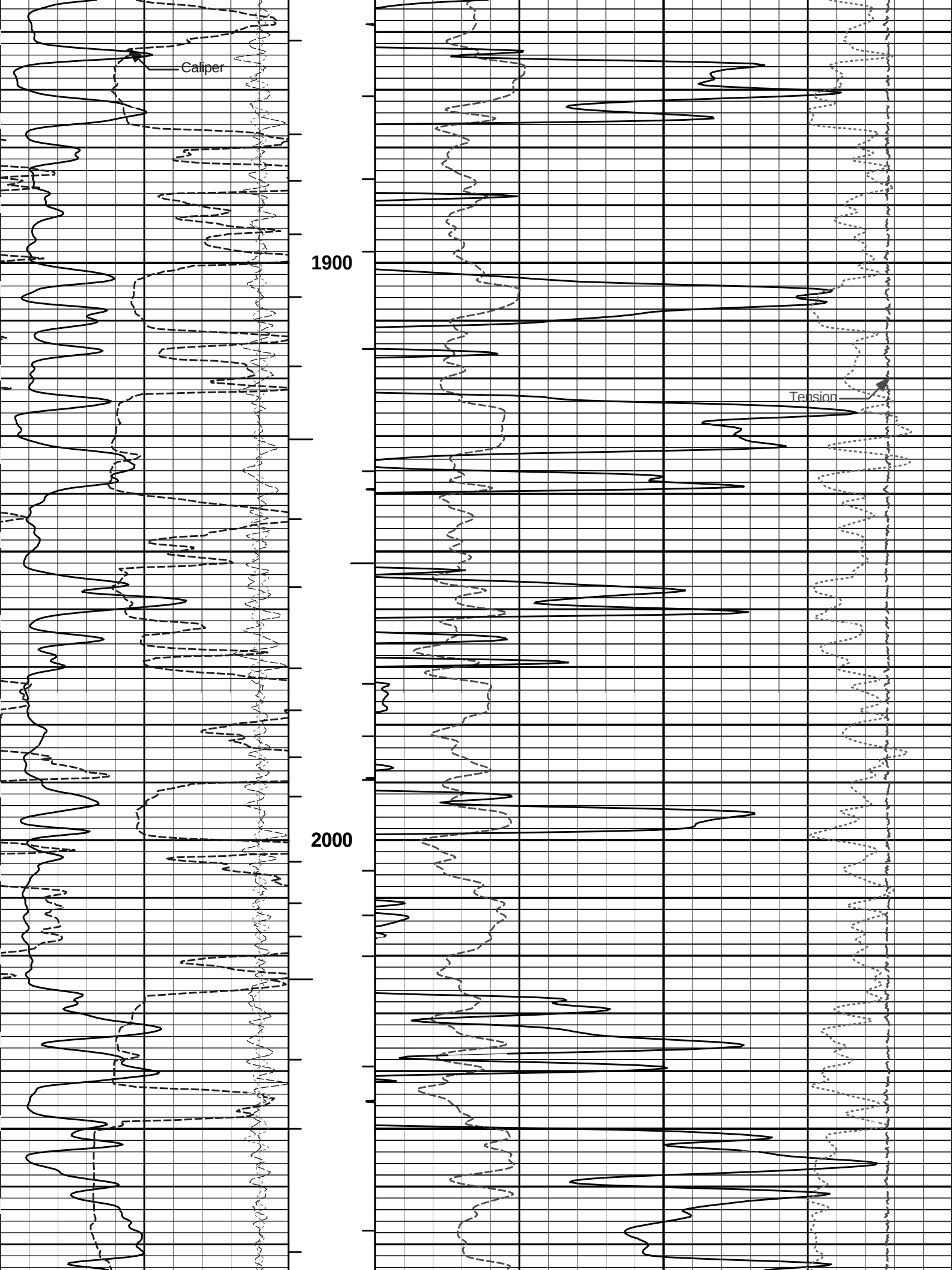
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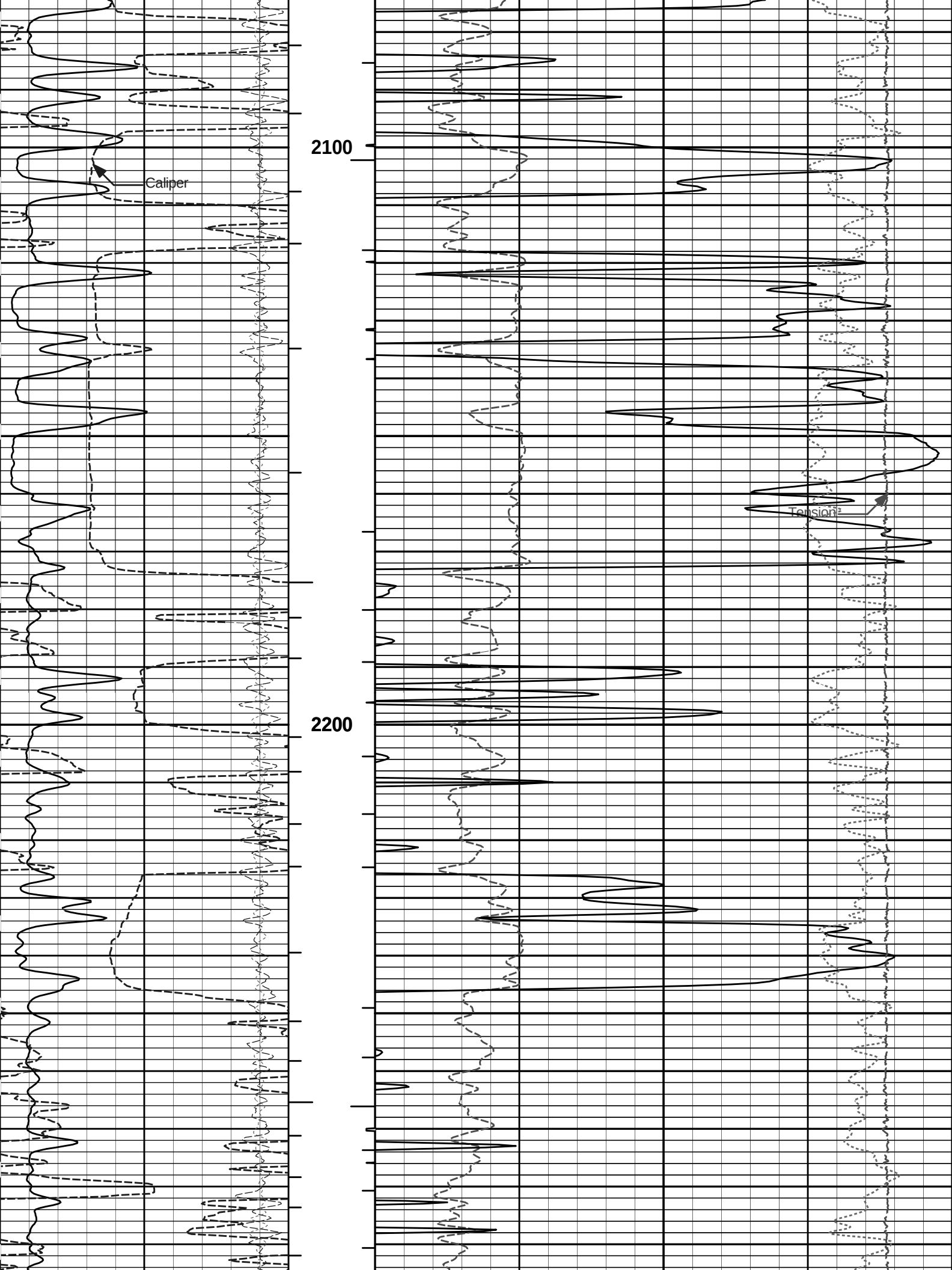
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Caliper
Tension
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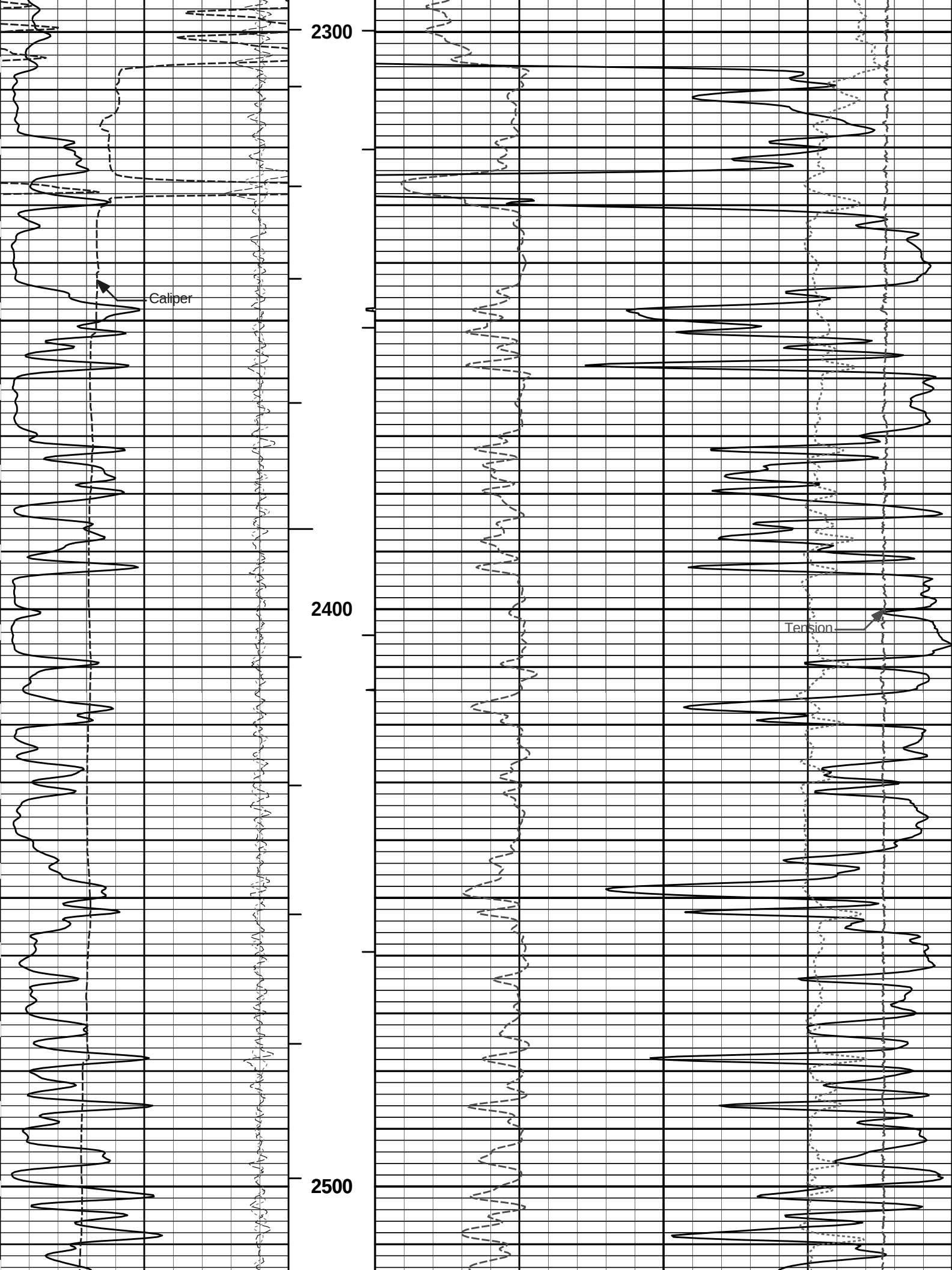
2300
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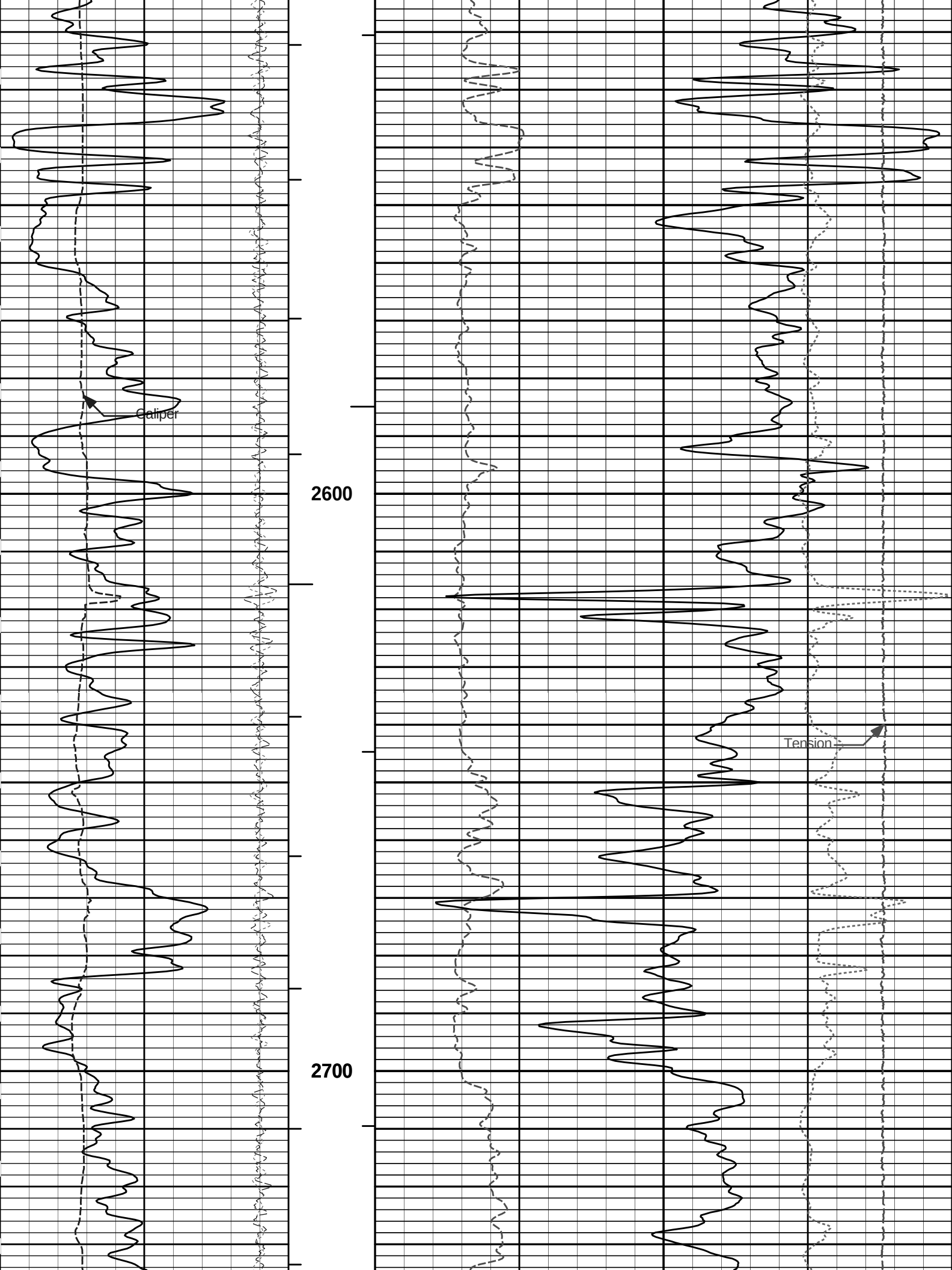
2500
Caliper
Tension


Caliper
2600
Tension
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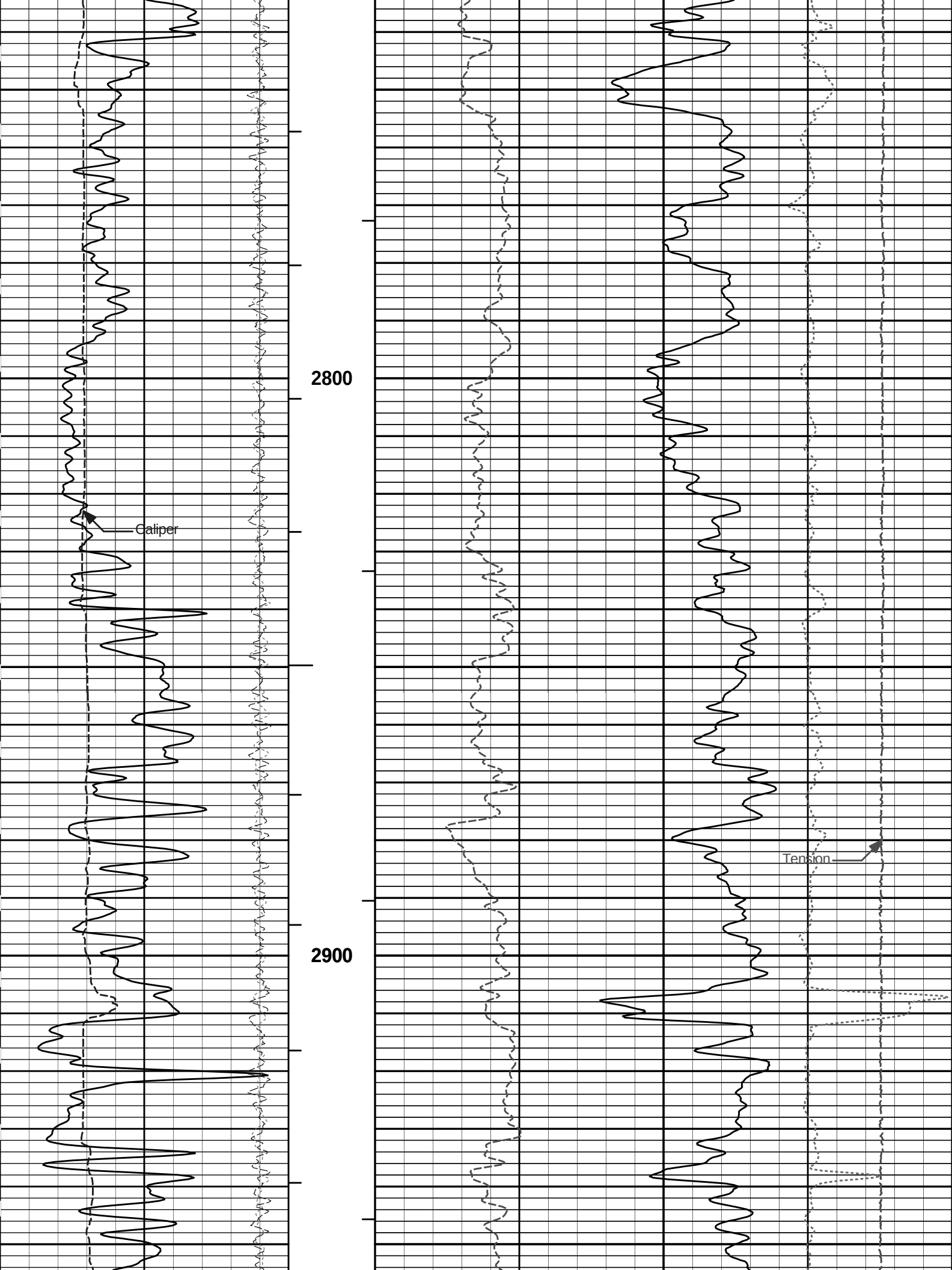
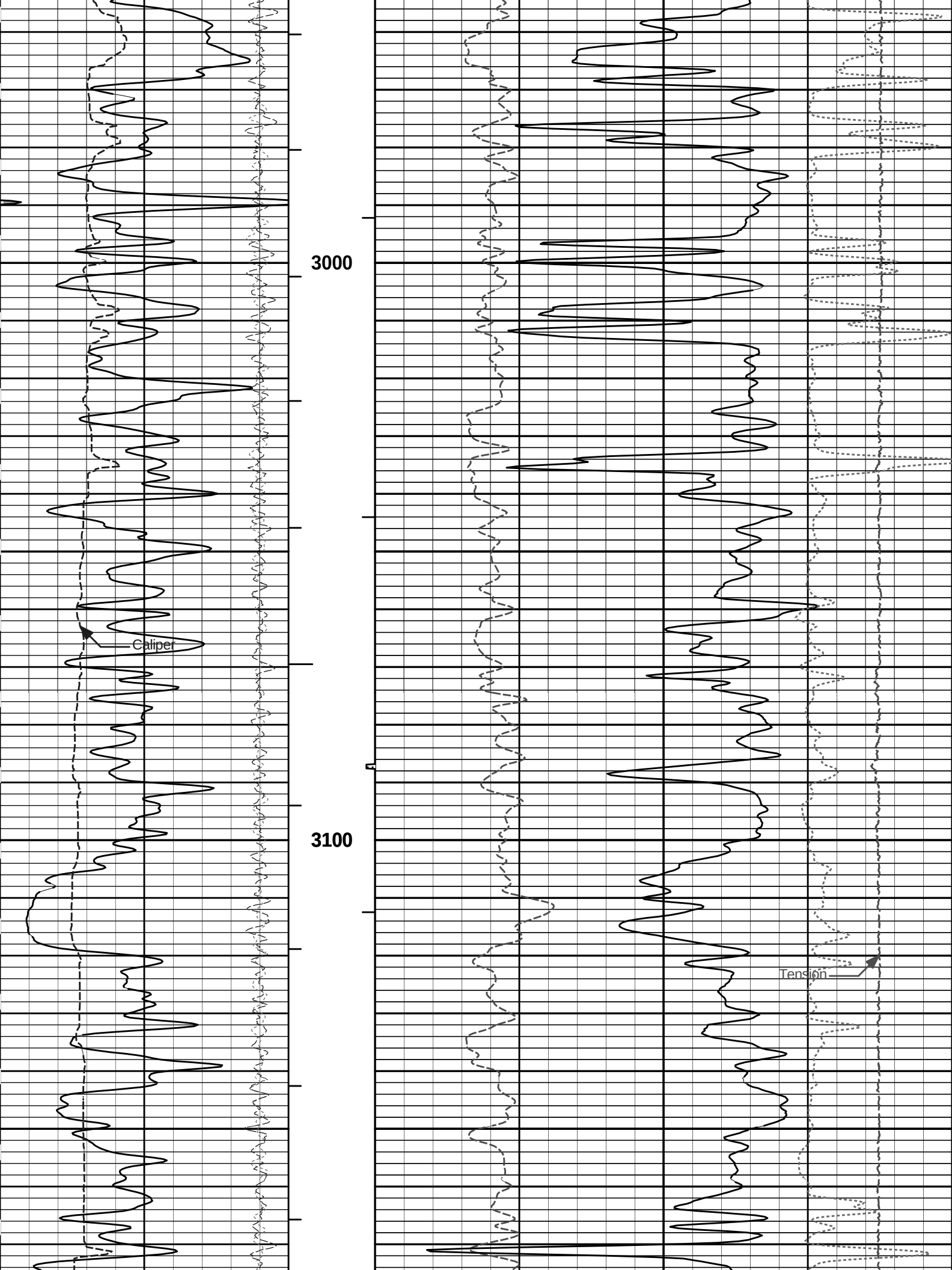

2800
2900
Caliper
Tension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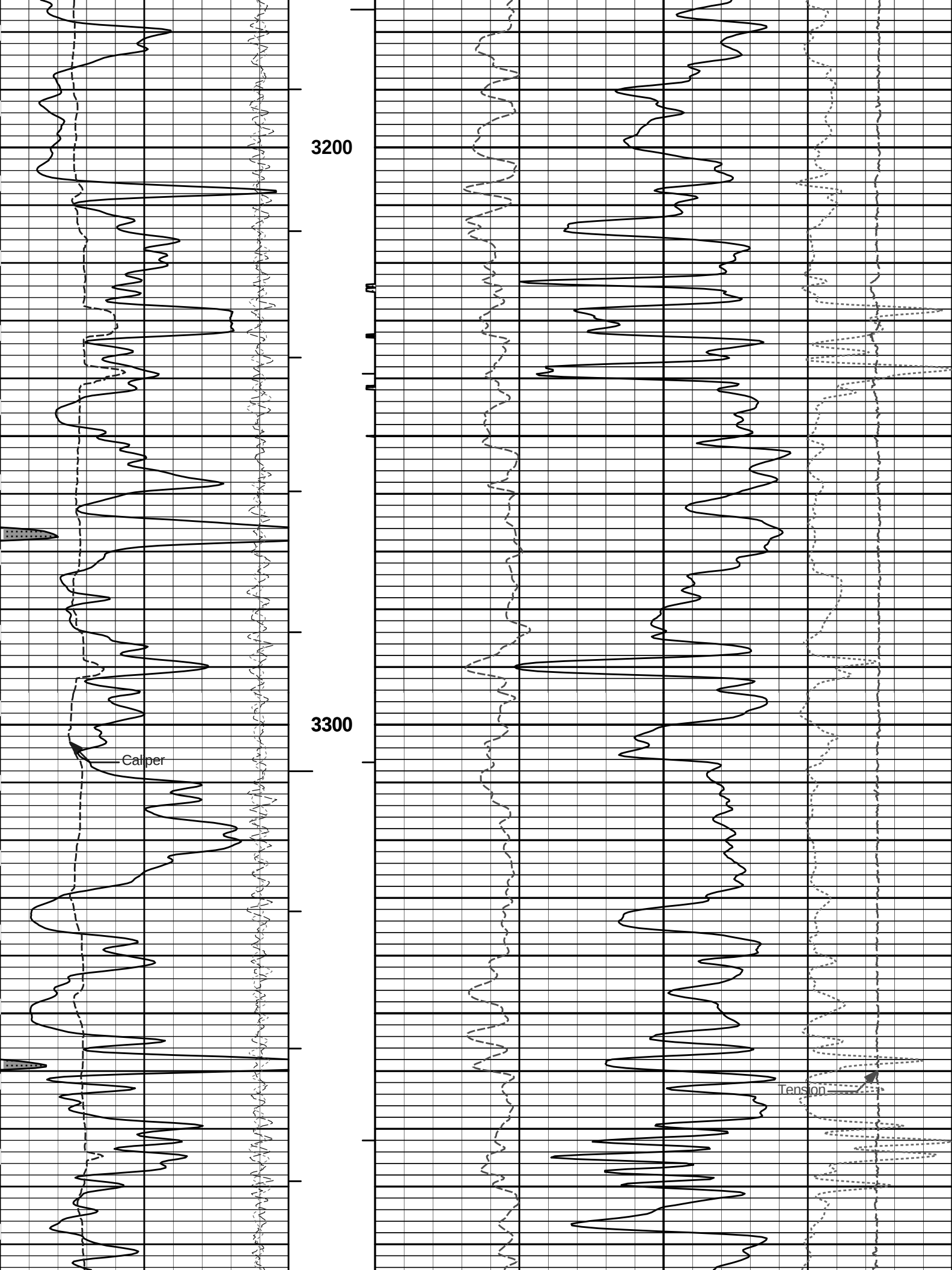
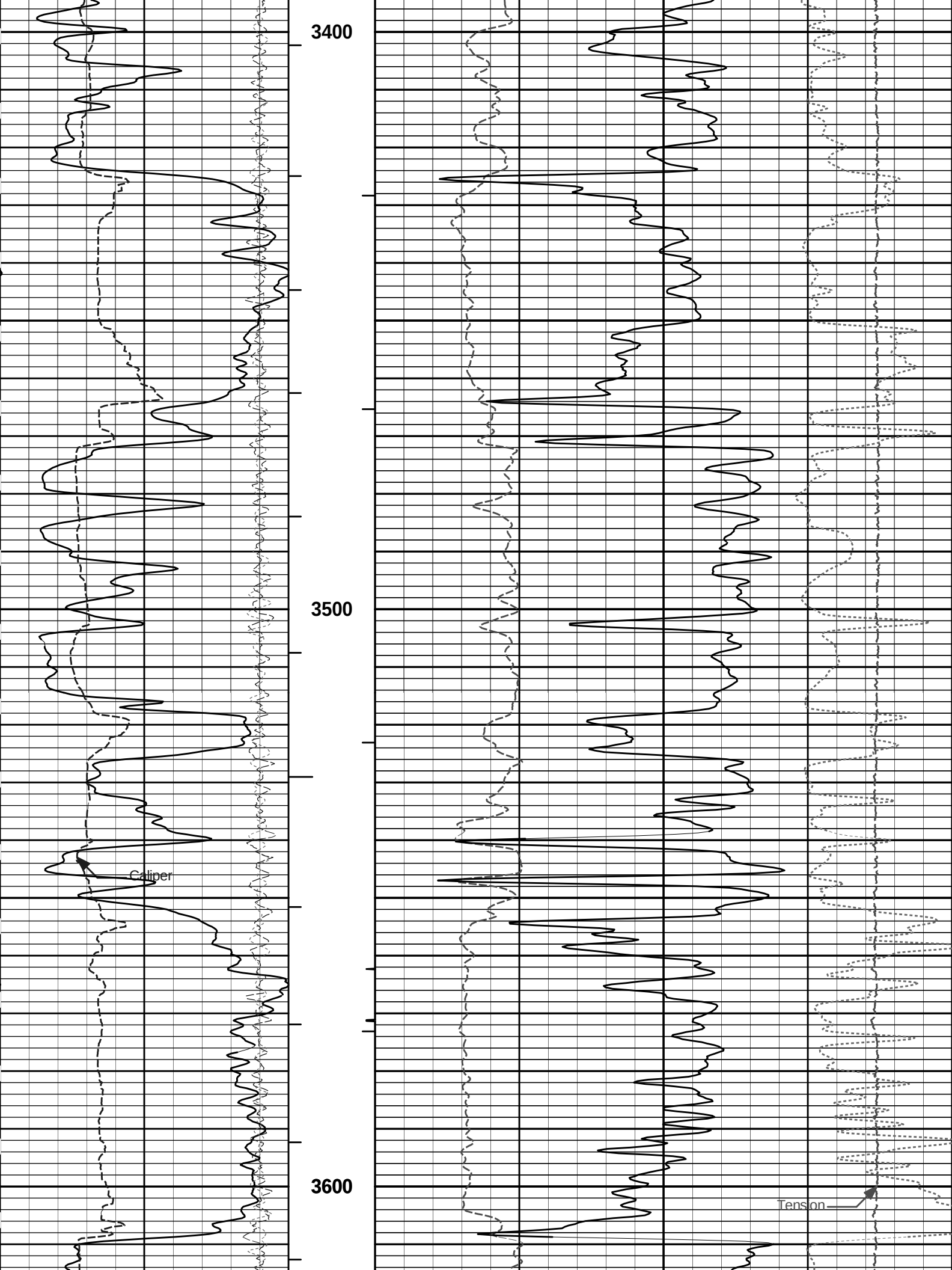
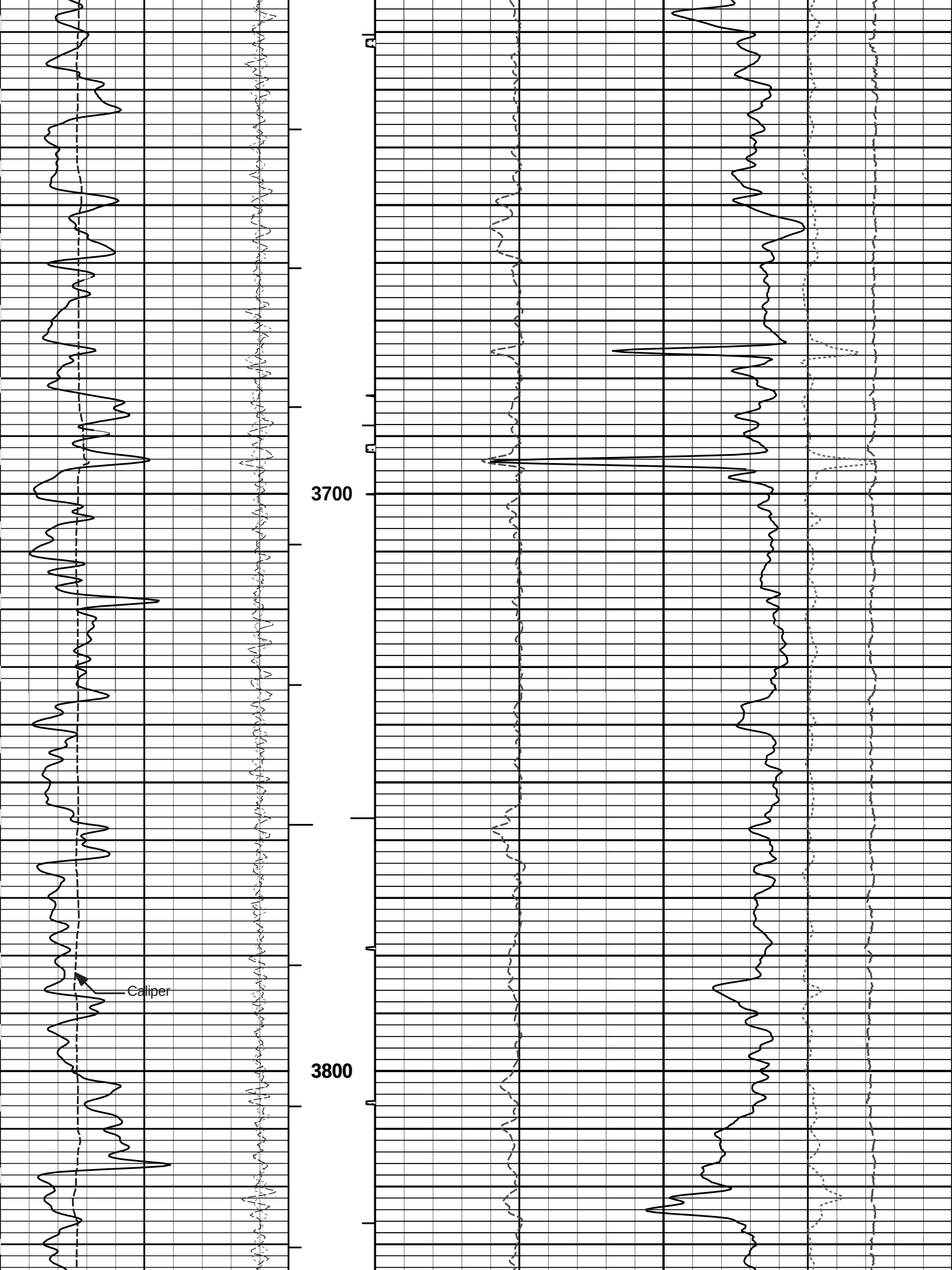
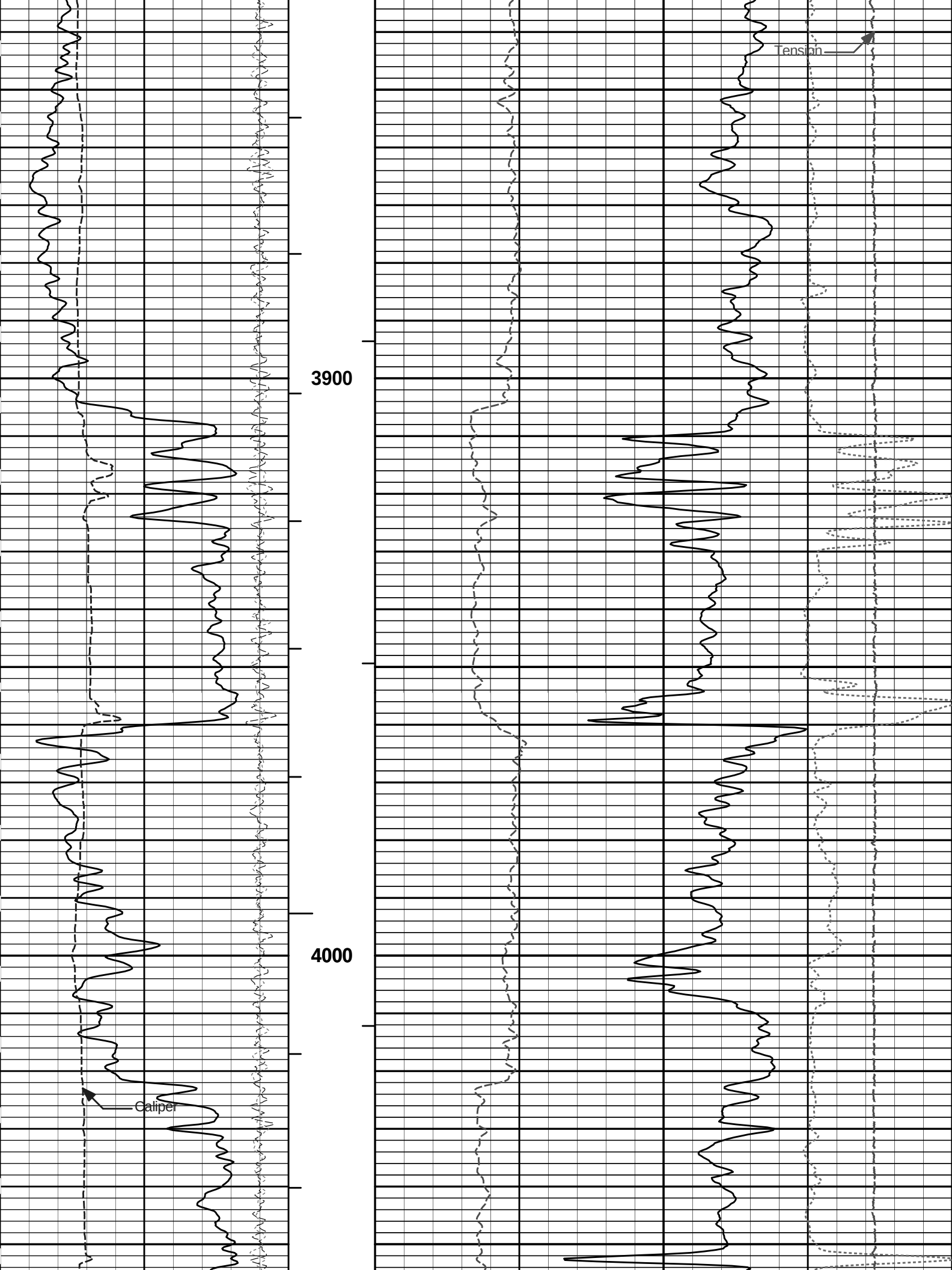
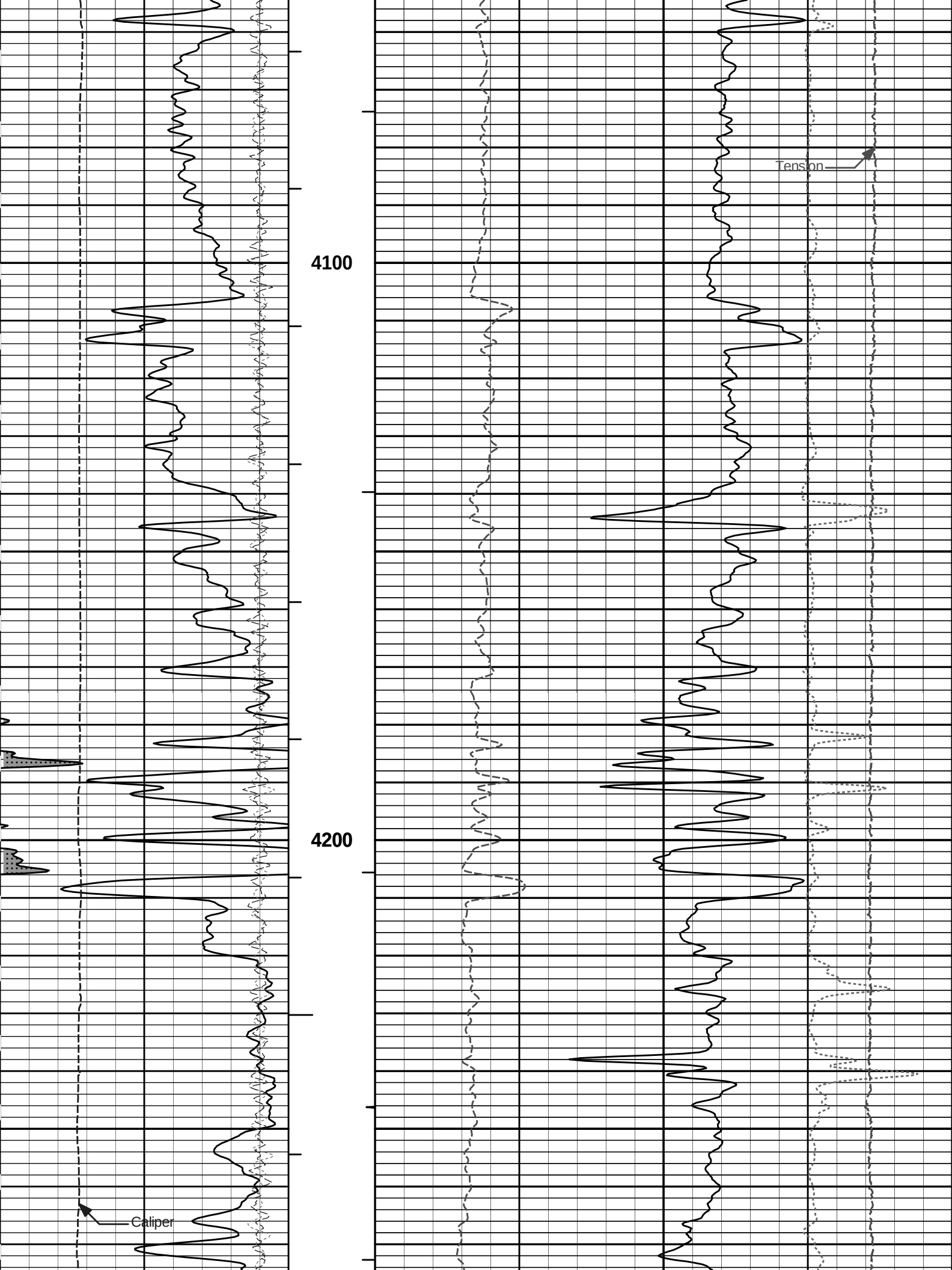
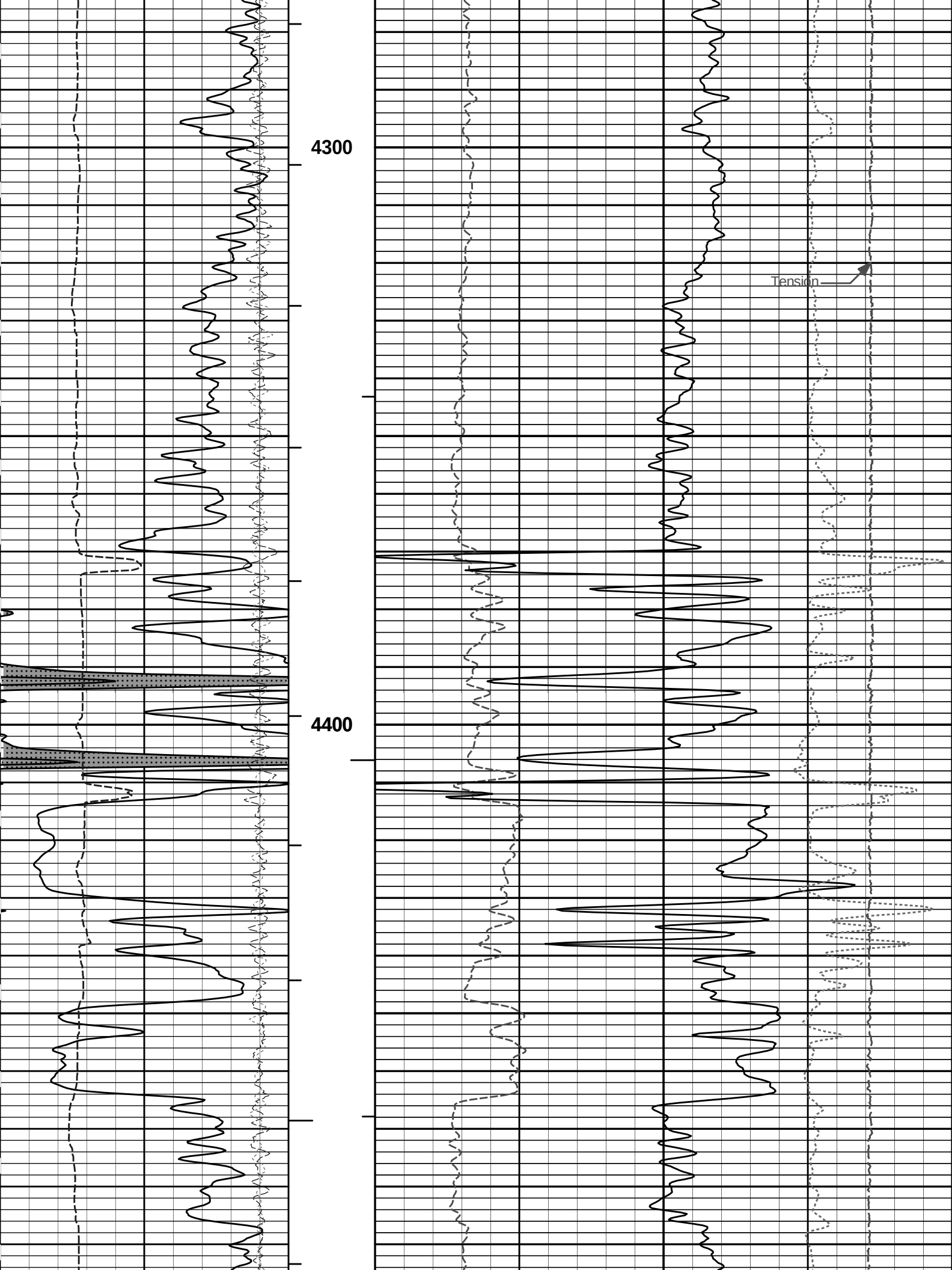

3200
3300
Caliper
Tension

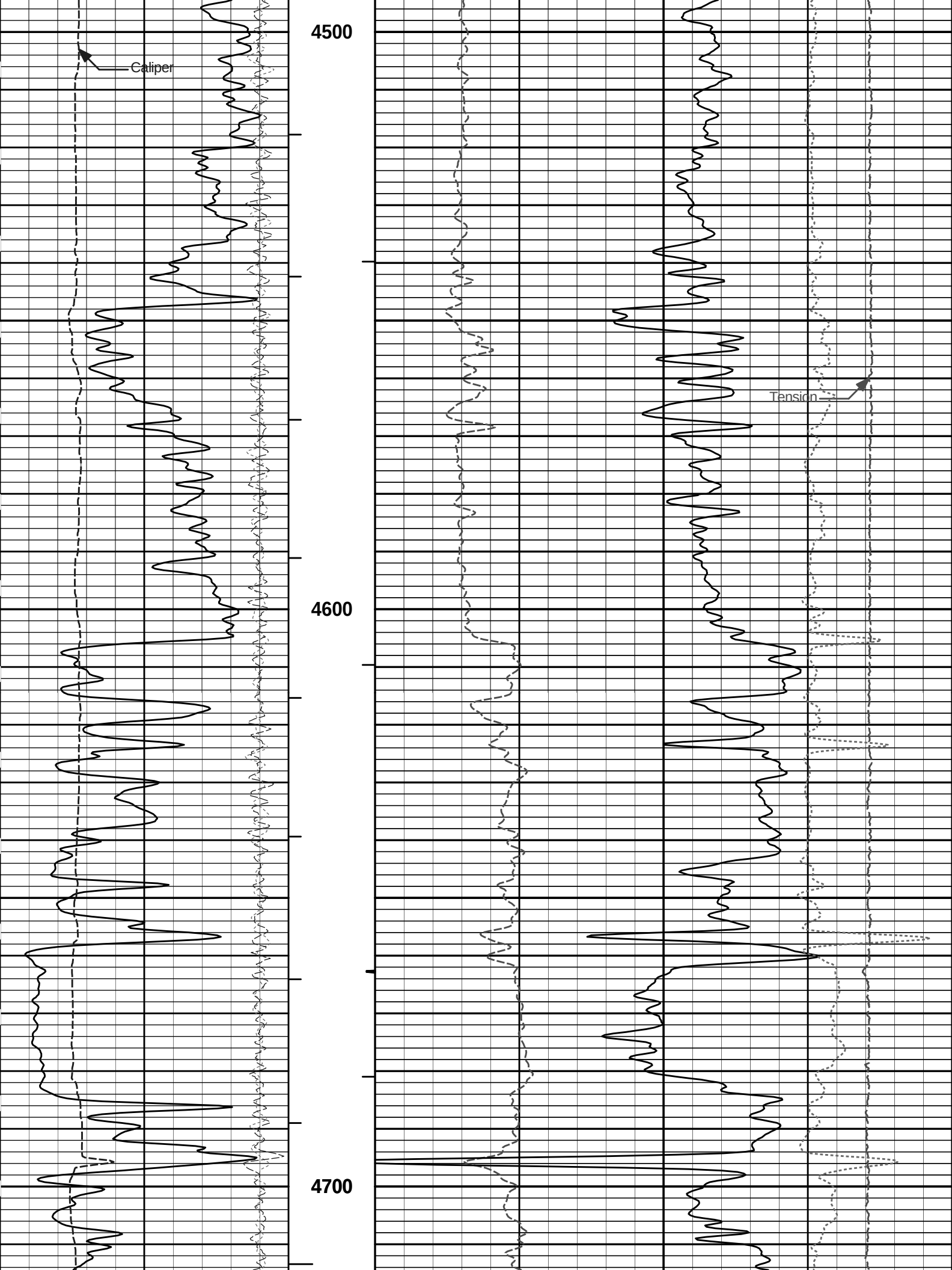

3400
3500
3600
Caliper
Tension

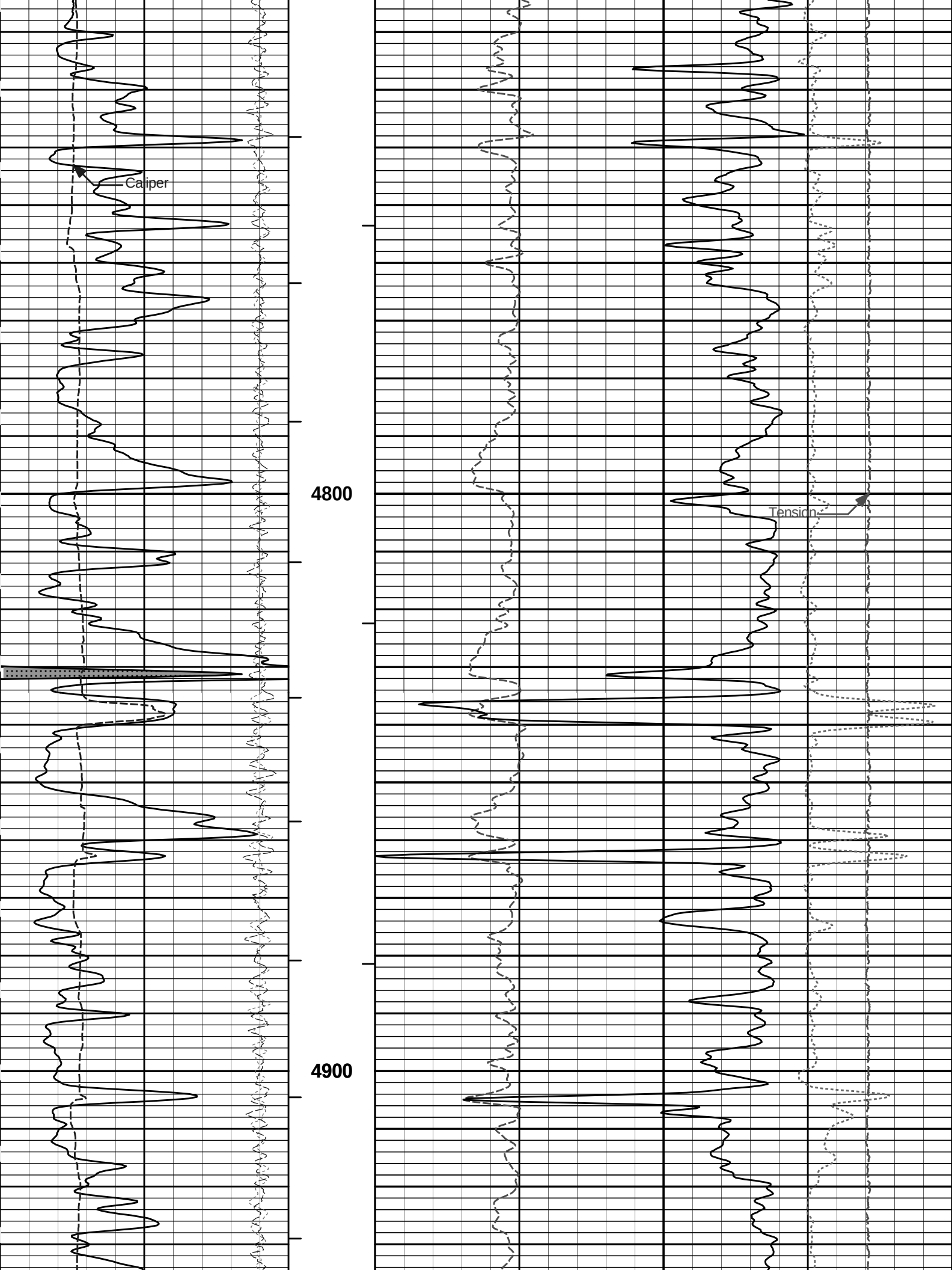

3700
3800
Caliper

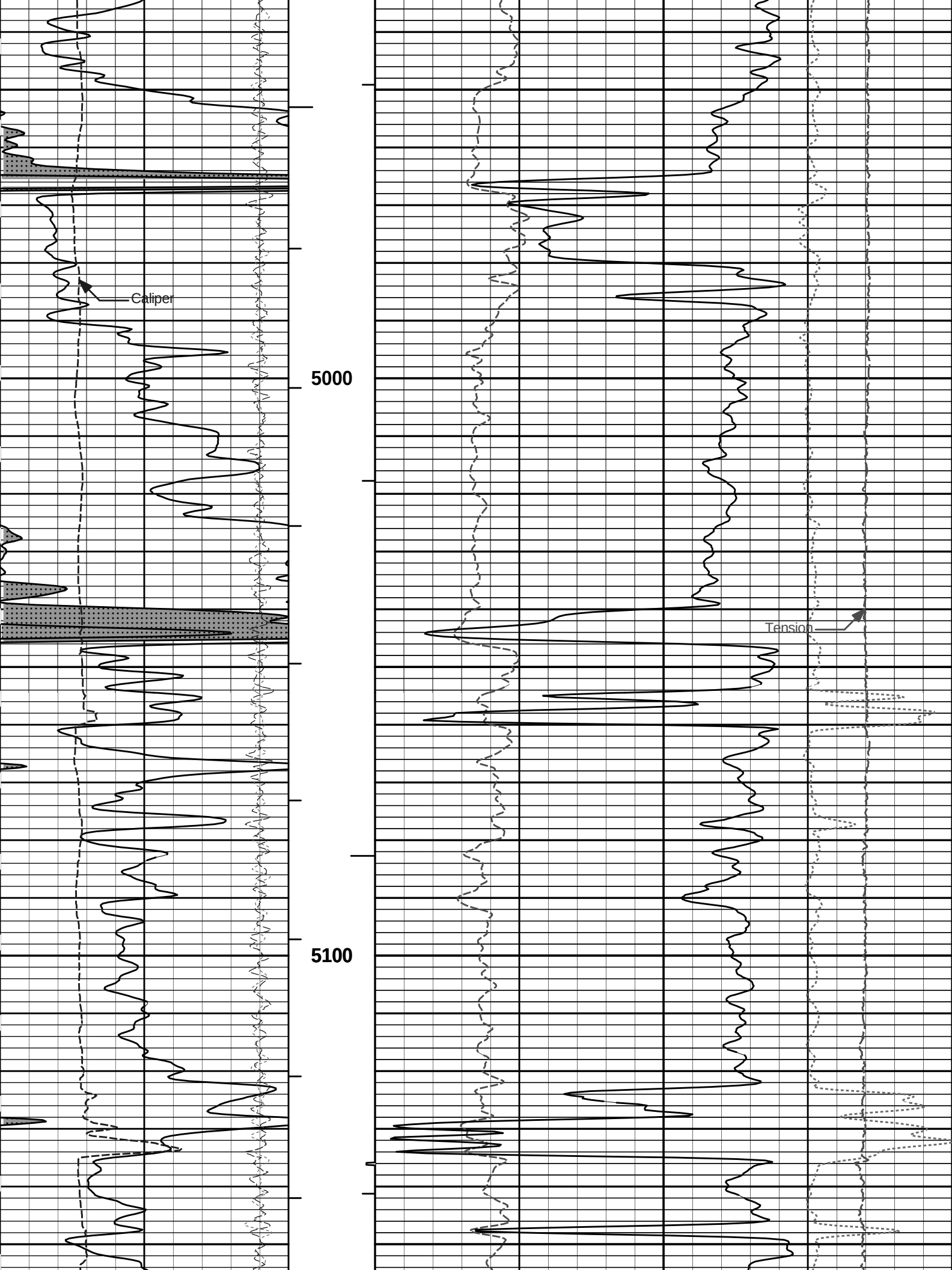

Tension
3900
4000
Caliper

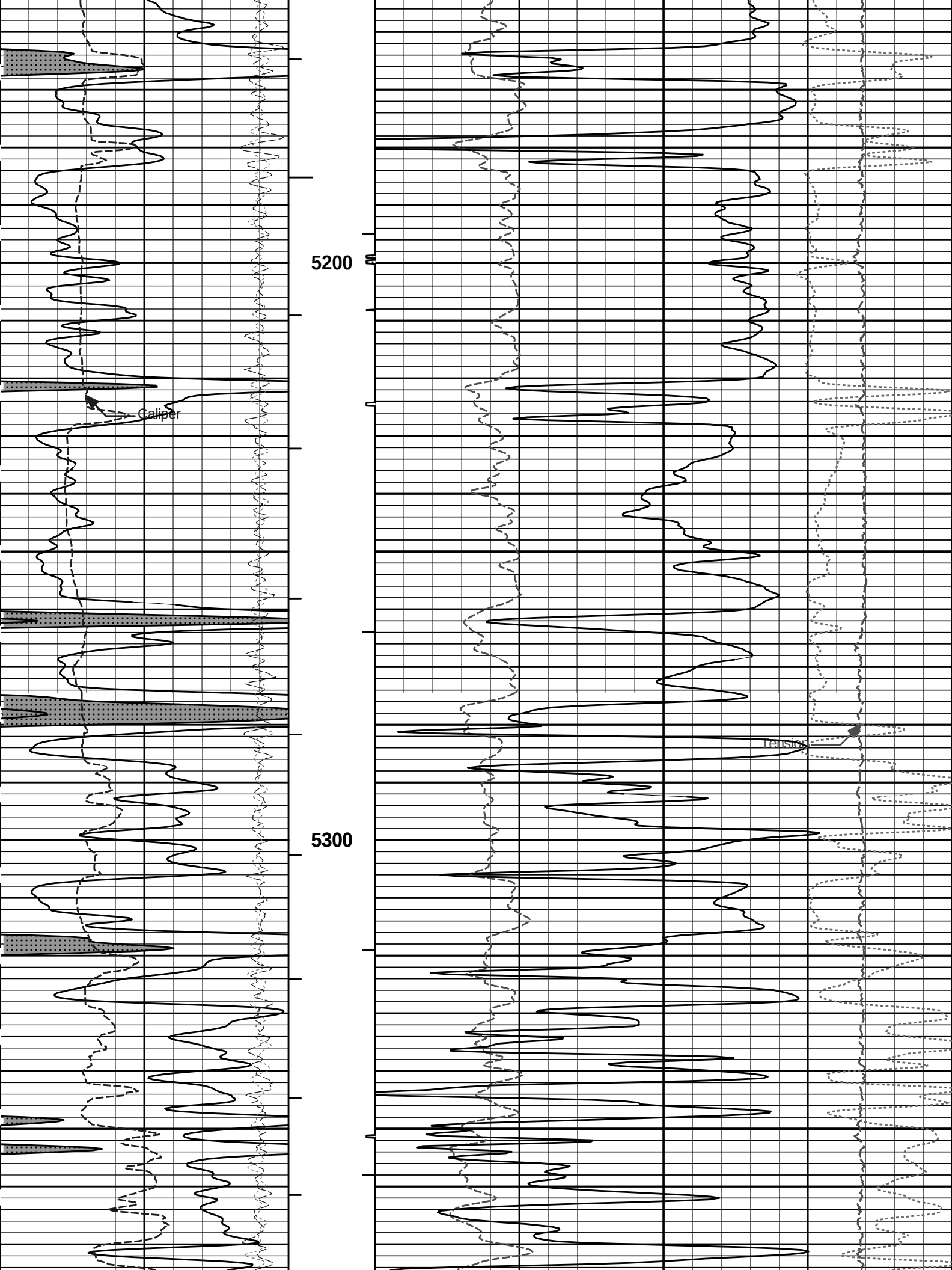

4100
4200
Tension
Caliper

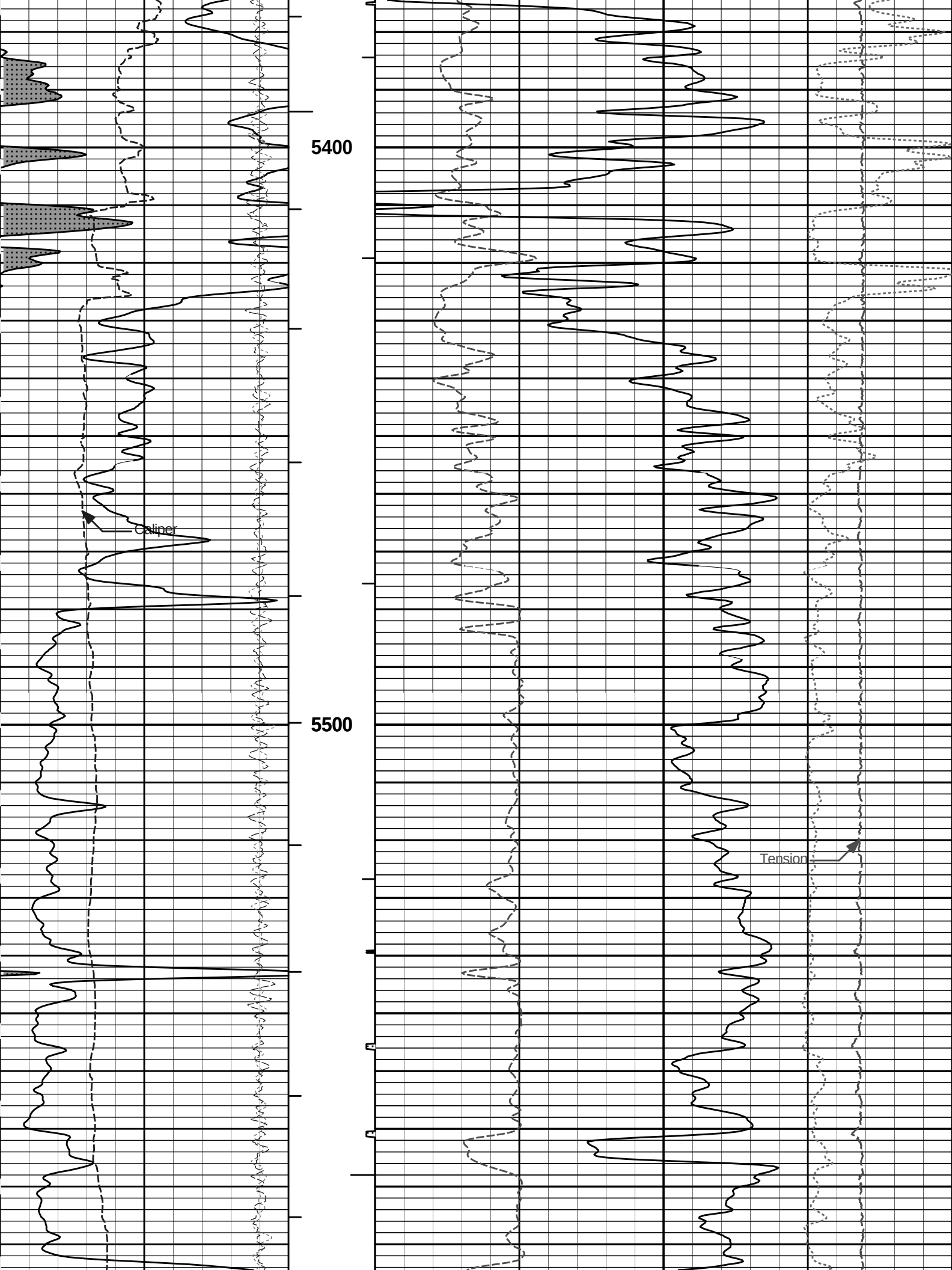

4300
4400
Tension

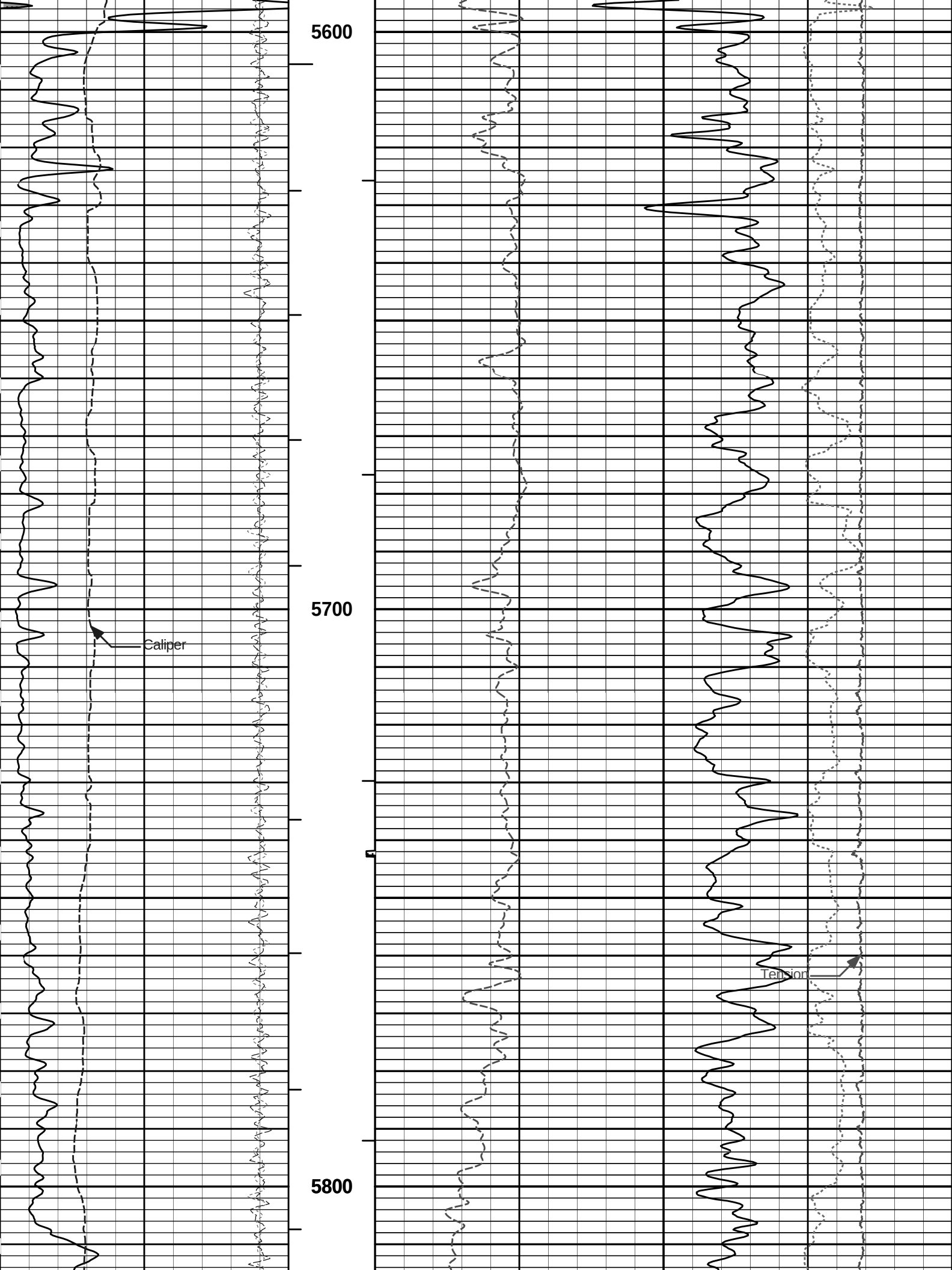

Caliper
4500
Tension
4600
4700

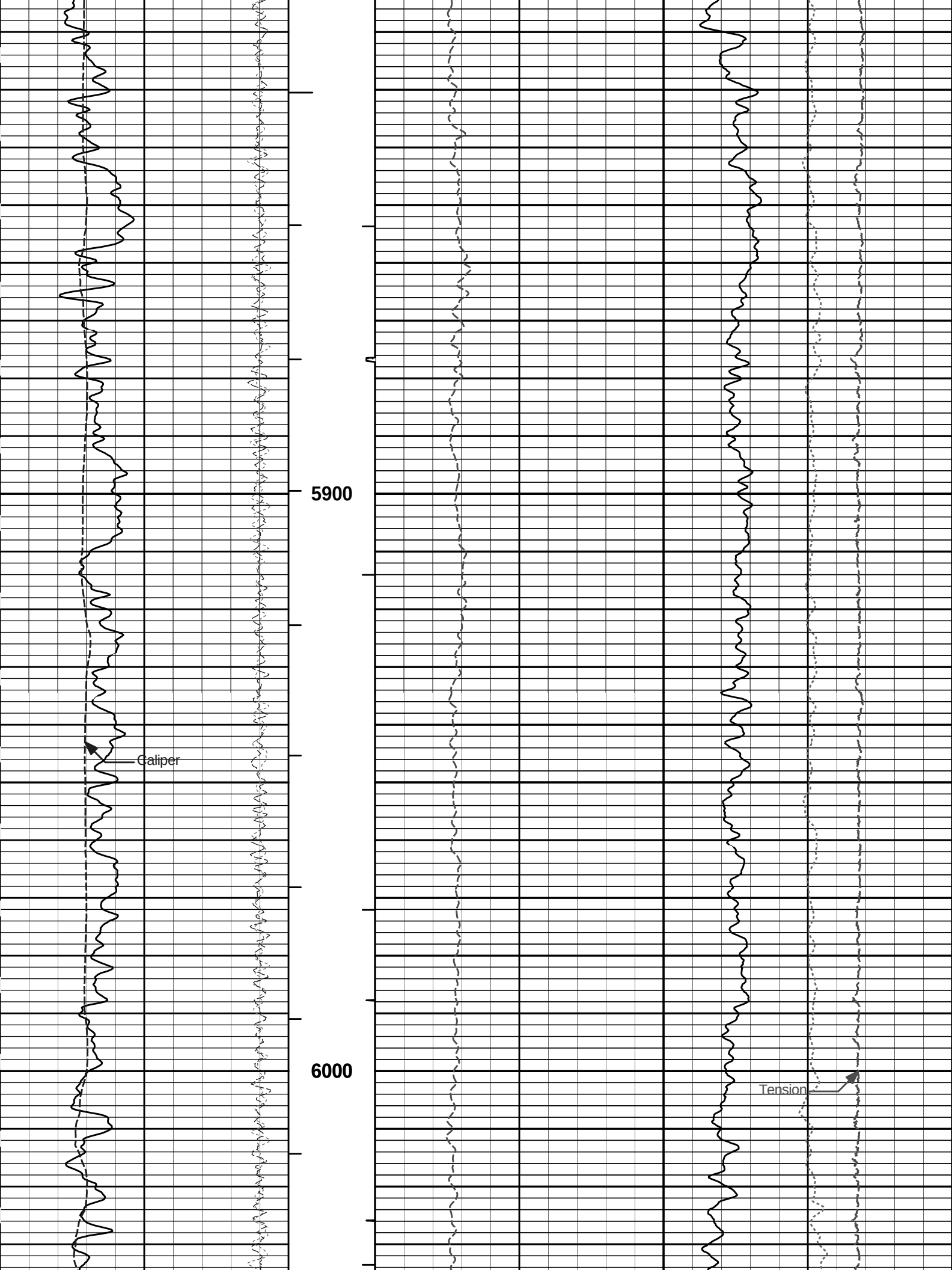

Caliper
4800
Tension
4900

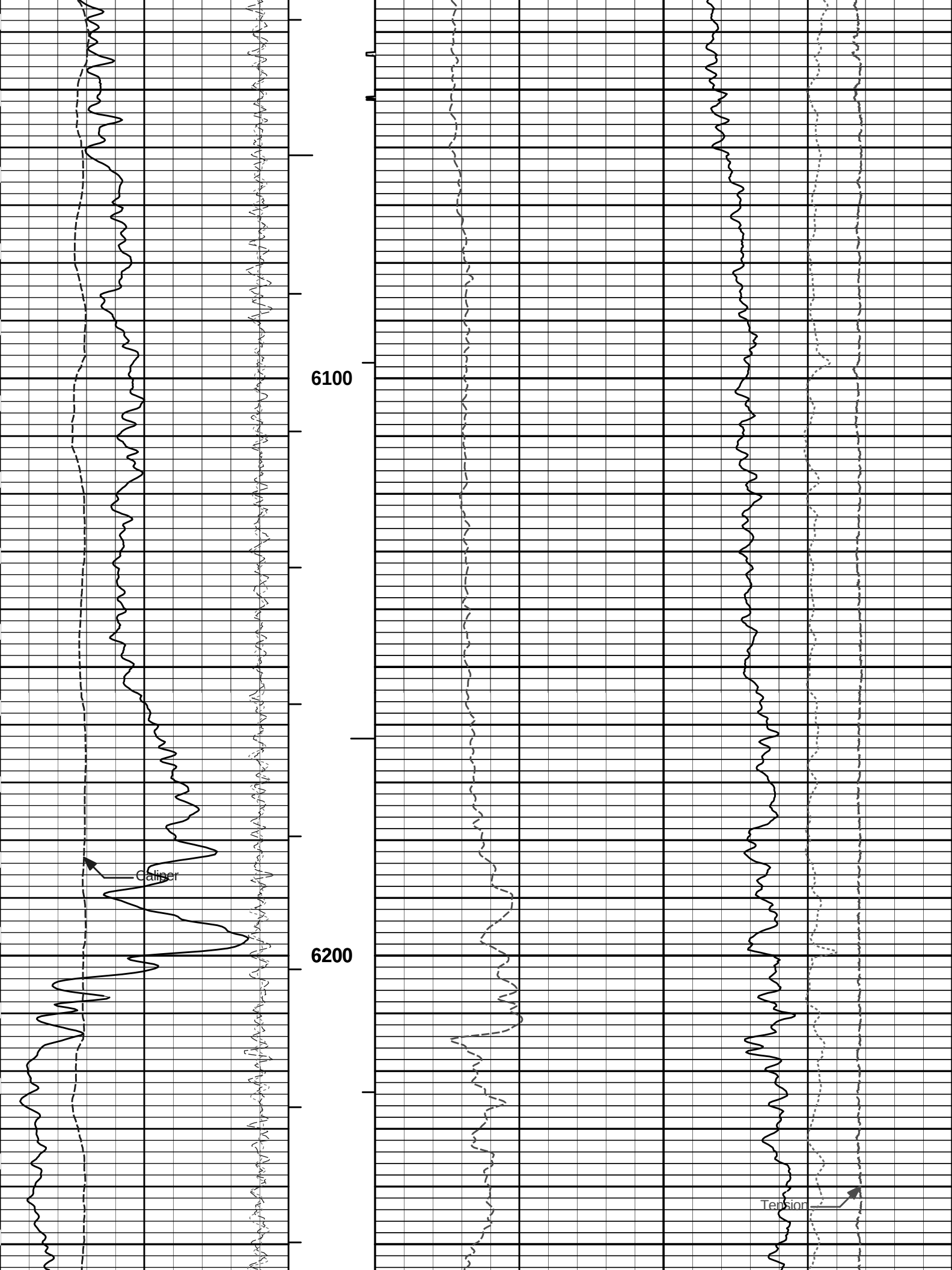

Caliper
5000
Tension
5100

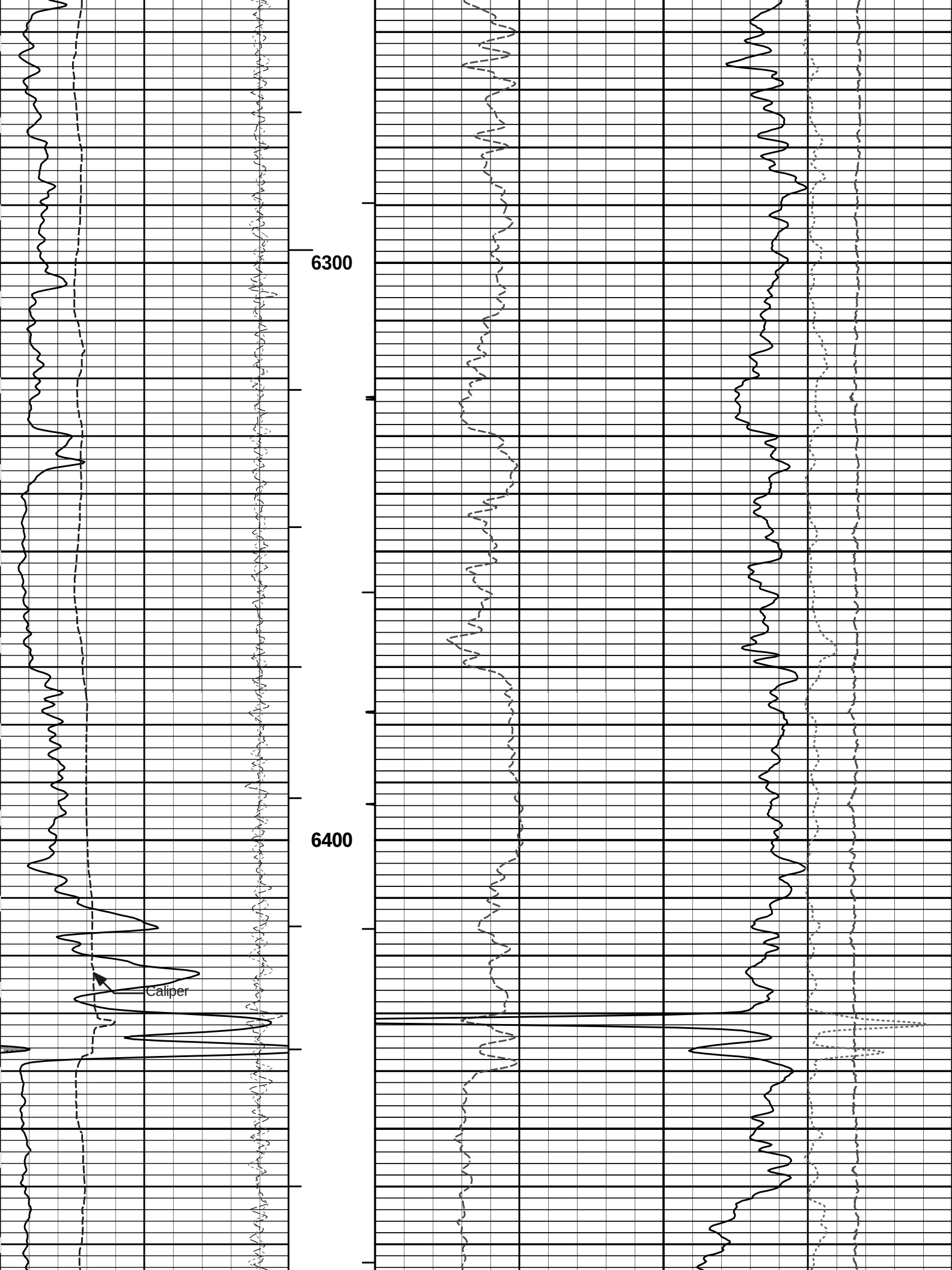

5200
Caliper
Tension
5300

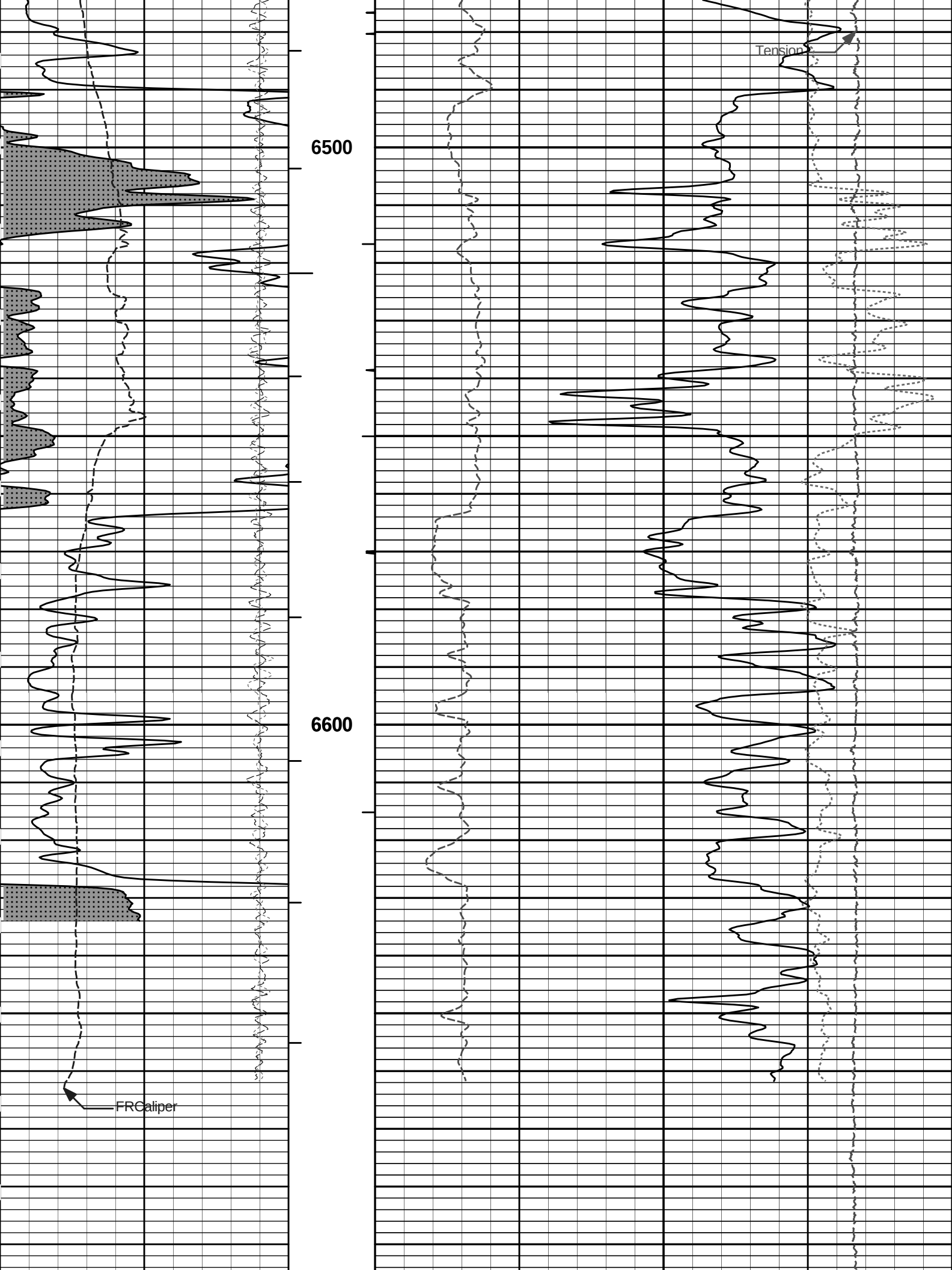

5400
5500
Caliper
Tension

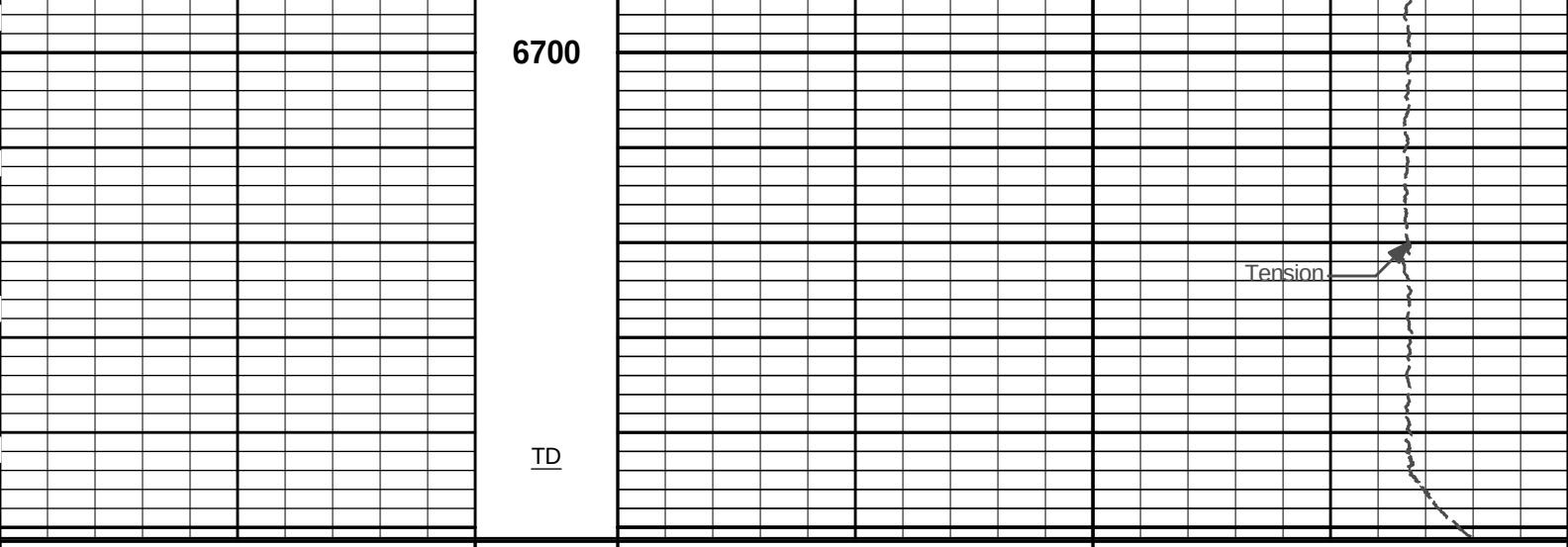

5600
5700
5800
Caliper
Tension


5900
6000
Caliper
Tension


6100
6200
Caliper
Tension


6300
6400
Caliper


6500
6600
Tension
FRCaliper



6 Caliper 16
inches
-18 NearQuality 2
18 FarQuality -2
0 Gamma Ray 150
api
SHALE

MD
1 : 240
ft
AHV
ft3
BHV
ft3
Tension Pull
10 0
Tension Pull

0 Pe 10
-0.25 DensityCorr 0.25
g/cc
15K Tension 0
pounds
2 Bulk Density 3
g/cc

HALLIBURTON

Plot Time: 15-Jun-12 22:12:39
Plot Range: 980 ft to 6751.17 ft
Data: SALT_3419_SWD14\Well Based\CASING\
Plot File: \\-LOCAL-\SALT_3419_SWD14\0002 SP-GTET-CSNG-DSN-SDLT-FLEX-WSTT-XRMI-ACRT-CH\PORO\BULKD_5_MAIN_LIB

5 INCH MAIN LOG

HALLIBURTON

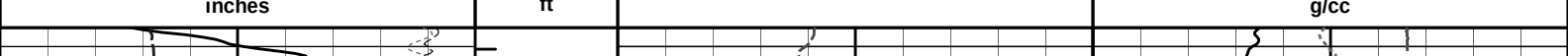
Plot Time: 15-Jun-12 22:12:39
Plot Range: 6420 ft to 6755.67 ft
Data: SALT_3419_SWD14\Well Based\REPEAT\
Plot File: \\-LOCAL-\SALT_3419_SWD14\0002 SP-GTET-CSNG-DSN-SDLT-FLEX-WSTT-XRMI-ACRT-CH\PORO\BULKD_5_REP_LIB

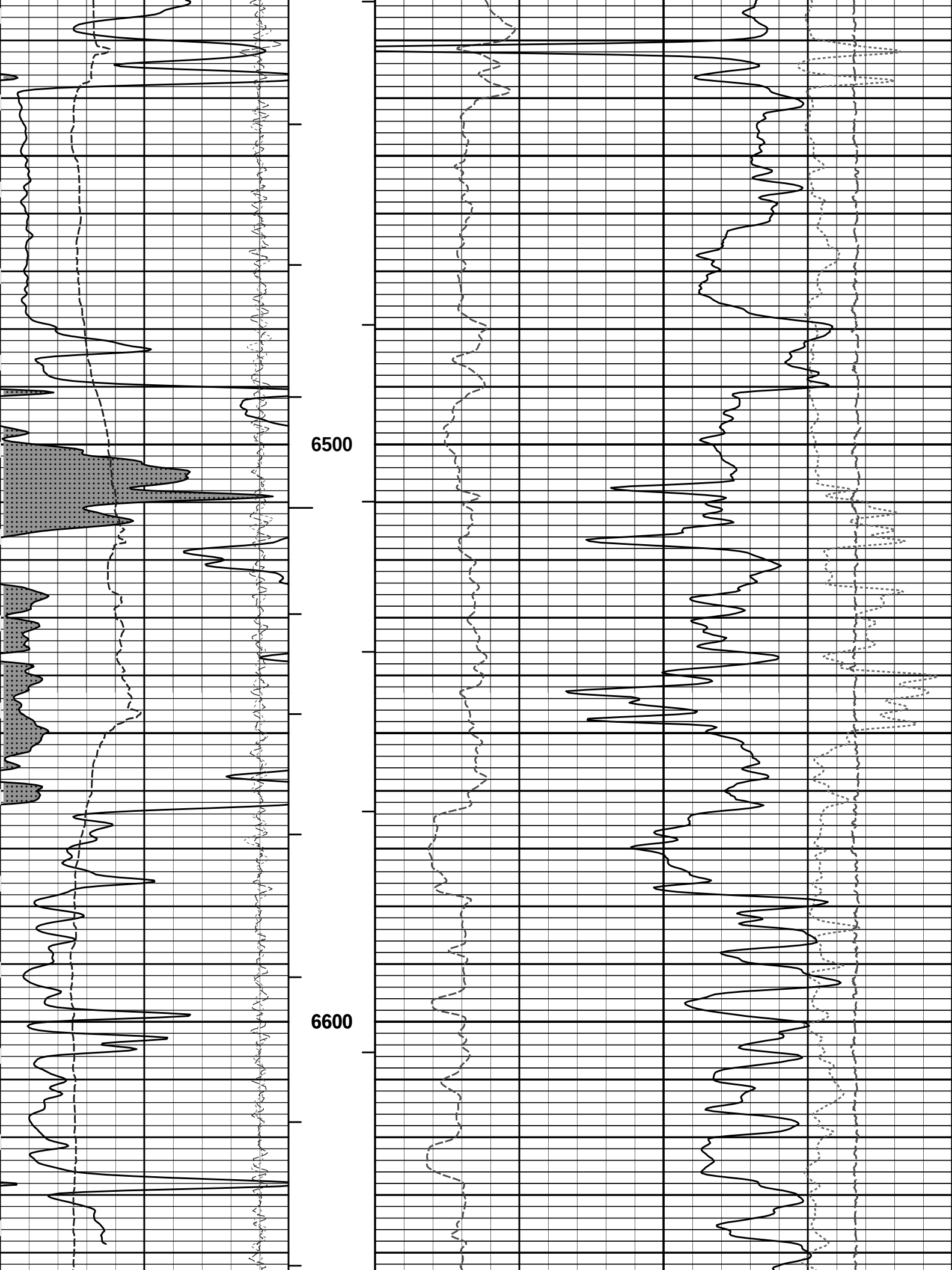
REPEAT SECTION

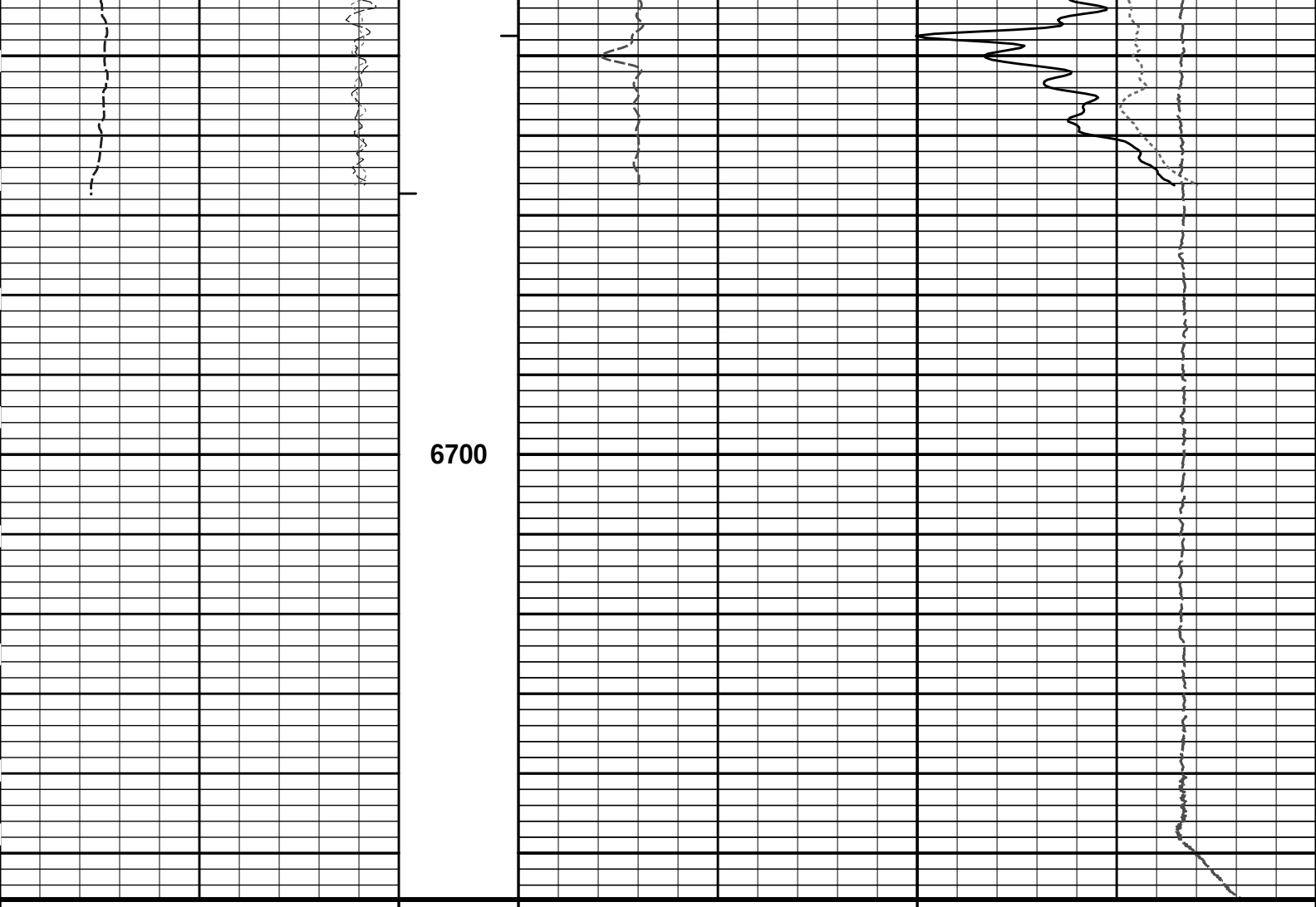
SHALE
0 Gamma Ray 150
api
18 FarQuality -2
-18 NearQuality 2
6 Caliper 16
inches

BHV
ft3
AHV
ft3
MD
1 : 240
ft

2 Bulk Density 3
g/cc
15K Tension 0
pounds
0 Pe 10
-0.25 DensityCorr 0.25
g/cc




6500
6600



6 Caliper 16	MD 1 : 240 ft	0 Pe 10 / -0.25 DensityCorr 0.25
inches		g/cc
-18 NearQuality 2	AHV ft3	15K Tension 0
		pounds
18 FarQuality -2	BHV ft3	2 Bulk Density 3
		g/cc
0 Gamma Ray 150		
api		
SHALE		

HALLIBURTON

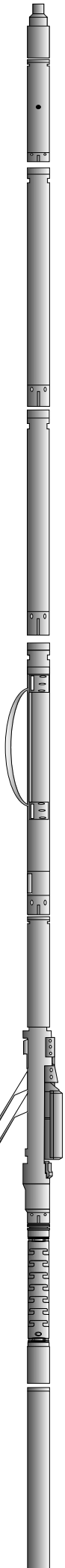
Plot Time: 15-Jun-12 22:12:42
Plot Range: 6420 ft to 6755.67 ft
Data: SALT_3419_SWD14\Well Based\REPEAT\
Plot File: \\-LOCAL-\SALT_3419_SWD14\0002 SP-GTET-CSNG-DSN-SDLT-FLEX-WSTT-XRMI-ACRT-CH\PORO\BULKD_5_REP_LIB

REPEAT SECTION

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
						137.94 ft



Cable Head-PROT01
30.00 lbs
Ø 3.625 in
1.92 ft
126.02 ft

SP Sub-001
60.00 lbs
Ø 3.625 in
SP @ 124.24 ft
3.74 ft
122.28 ft

GTET-11039640
165.00 lbs
Ø 3.625 in
8.52 ft
GammaRay @ 116.22 ft
113.76 ft

CSNG-10765101
114.00 lbs
Ø 3.625 in
8.17 ft
CSNG @ 108.13 ft
105.59 ft

DSN Decentralizer-11005605
6.60 lbs
Ø 5.000 in*

DSNT-11055304
174.00 lbs
Ø 3.625 in
9.69 ft
DSN Far @ 98.66 ft
DSN Near @ 97.91 ft
95.91 ft

SDLT-I04_M296
360.00 lbs
Ø 4.500 in
10.81 ft

SDLT Pad-P84
65.00 lbs
Ø 4.750 in*
Microlog @ 88.09 ft
SDL Caliper @ 87.91 ft

Microlog Pad-M296
8.00 lbs
Ø 4.750 in*
SDL @ 87.90 ft
85.09 ft

IQ Flex-696
140.00 lbs
Ø 3.625 in
5.67 ft
79.42 ft

WAVE Upper Electronics-10055643
151.50 lbs
Ø 3.625 in
8.33 ft

71.09 ft

WAVE Trans-Isolator - Std-
10055645
277.00 lbs

Ø 3.625 in

10.88 ft

60.21 ft

WAVE Receivers-
10055644
135.00 lbs

Ø 3.625 in

Wavesonic Delay @ 56.79 ft

6.67 ft

53.54 ft

WAVE Lower Electronics-
10055646
146.50 lbs

Ø 3.625 in

8.25 ft

45.29 ft

XRMI Isolator-001
32.50 lbs

Ø 4.500 in

1.30 ft

43.99 ft

XRMI-I Instrument-
11682412
290.00 lbs

Ø 4.500 in

13.00 ft

30.99 ft

Ø 5.000 in

XRMI-I Mandrel-
11682413
206.00 lbs

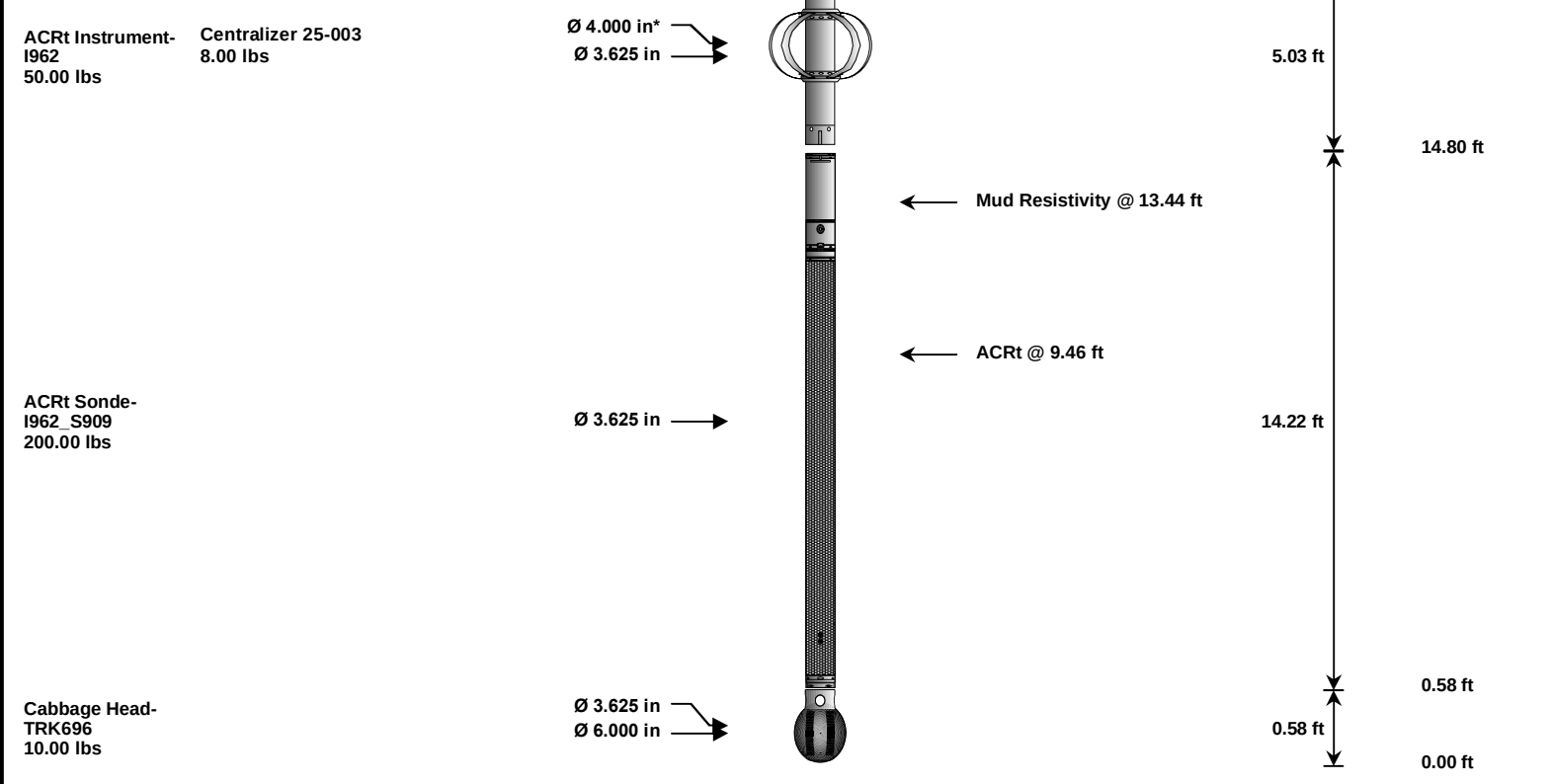
Ø 4.500 in

11.16 ft

Pads 2, 4, 6 @ 22.60 ft

Pads 1, 3, 5 @ 22.37 ft

19.83 ft



Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)		Accumulated Length (ft)	Max.Log. Speed (fpm)
CH	Standard OH Cable Head	PROT01	30.00	1.92		126.02	300.00
SP	SP Sub	001	60.00	3.74		122.28	300.00
GTET	Gamma Telemetry Tool	11039640	165.00	8.52		113.76	60.00
CSNG	Compensated Spectral Natural Gamma	10765101	114.00	8.17		105.59	15.00
DSNT	Dual Spaced Neutron	11055304	174.00	9.69		95.91	60.00
DCNT	DSN Decentralizer	11005605	6.60	5.13	*	99.24	300.00
SDLT	Spectral Density Tool	I04 M296	360.00	10.81		85.09	60.00
SDLP	Density Insite Pad	P84	65.00	2.55	*	87.30	60.00
MICP	Microlog Pad	M296	8.00	1.00	*	87.59	60.00
IQF	IQ Flex tool	696	140.00	5.67		79.42	300.00
WSTT	WAVE Transmitter Electronics - Insite	10055643	151.50	8.33		71.09	100.00
WTIS	WAVE Standard Transmitter - Standard Isolator	10055645	277.00	10.88		60.21	100.00
WSTT	WAVE Receiver Section - Offset Dipole	10055644	135.00	6.67		53.54	30.00
WSTT	WAVE Lower Electronics - Insite	10055646	146.50	8.25		45.29	100.00
	Isolator for the XRMI tool	001	32.50	1.30		43.99	300.00
XRMI	XRMI Navigation - Insite	11682412	290.00	13.00		30.99	30.00
XRMI-I	XRMI Imager - Insite	11682413	206.00	11.16		19.83	30.00
ACRt	Array Compensated True Resistivity Instrument Section	I962	50.00	5.03		14.80	300.00
OBCEN	Centralizer - 25 in. Overbody	003	8.00	2.08	*	16.51	300.00
ACRt	Array Compensated True Resistivity	I962_S909	200.00	14.22		0.58	300.00
CBHD	Cabbage Head	TRK696	10.00	0.58		0.00	300.00
Total			**2,629.10**	**127.94**			

* Not included in Total Length and Length Accumulation.

Data: SALT_3419_SWD14\0002 SP-GTET-CSNG-DSN-SDLT-FLEX-WSTT-XRMI-ACRT-CH\IDLE **Date: 15-Jun-12 13:18:06**

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:	**GTET - 11039640**	**Reference Calibration Date:**	**17-May-12 09:57:29**
Engineer:	**THOMAS HYDE**	**Calibration Date:**	**14-Jun-12 08:57:44**
Software Version:	**WL INSITE R3.4.2 (Build 2)**	**Calibration Version:**	**1**

Calibrator Source S/N: TB146

Calibrator API Reference:265.00 api

Equivalent Calibrator API Reference:269.6 api

Measurement	Measured	Calibrated	Units
Background	51.3	51.0	api
Background + Calibrator	322.2	320.7	api
Calibrator	270.9	269.6	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name: GTET - 11039640 **Reference Calibration Date:** 14-Jun-12 08:57:44

Engineer: THOMAS HYDE **Calibration Date:** 14-Jun-12 09:00:06

Software Version: WL INSITE R3.4.2 (Build 2) **Calibration Version:** 1

Calibrator Source S/N: TB146

Calibrator API Reference:265.00 api

Equivalent Calibrator API Reference:269.6 api

Field Verification	Shop	Field	Units
Background	51.0	50.7	api
Background + Calibrator	320.7	320.3	api
Calibrator	269.6	269.6	api

Shop	Field	Difference	Tolerance
269.6	269.6	0.0	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name: DSNT - 11055304 **Reference Calibration Date:** 17-May-12 10:28:45

Engineer: THOMAS HYDE **Calibration Date:** 14-Jun-12 10:13:23

Software Version: WL INSITE R3.4.2 (Build 2) **Calibration Version:** 1

Logging Source S/N: 696

Tank Serial Number: LIBERAL_NEUTRON

Reference value assigned to Tank: 51.680

Snow Block S/N: 696

Calibration Tank Water Temperature: 74 degF

Min. Tool Housing Outside Diameter: 3.620 in

CALIBRATION CONSTANTS

Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.987	0.987	0.900 - 1.100

WATER TANK SUMMARY (Horizontal Water Tank)

Measurement	Current Reading (Previous Coef.)	Calibrated (New Coef.)	Change	Control Limit On Change
Porosity (decp):	0.2108	0.2107	0.0001	+/- 0.0020
Calibrated Ratio:	9.72	9.72	0.004	+/- 0.050

VERIFIER

Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0602	0.02000 - 0.09000

PASS/FAIL SUMMARY

Background Check:	Passed
Gain-Range Check:	Passed

Snow-Block Check:	Passed

DUAL SPACED NEUTRON FIELD CALIBRATION

Tool Name:	**DSNT - 11055304**	**Reference Calibration Date:**	**14-Jun-12 10:13:23**
Engineer:	**THOMAS HYDE**	**Calibration Date:**	**14-Jun-12 10:14:45**
Software Version:	**WL INSITE R3.4.2 (Build 2)**	**Calibration Version:**	**1**

Logging Source S/N: 696

Snow Block S/N: 696

NEUTRON FIELD-CHECK SUMMARY

	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0602	0.0602	-0.0000	+/- 0.0150

PASS/FAIL SUMMARY

Block Change Check:	Passed
Snow Block Stat Check:	Passed
Temperature Check:	Passed

DENSITY CALIPER SHOP CALIBRATION

Tool Name:	**SDLT - I04_M296**	**Reference Calibration Date:**	**14-Jun-12 11:53:43**
Engineer:	**THOMAS HYDE**	**Calibration Date:**	**14-Jun-12 12:01:55**
Software Version:	**WL INSITE R3.4.2 (Build 2)**	**Calibration Version:**	**1**

CALIBRATION COEFFICIENTS

Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-4237.39	-3678.97	-7000.00 - -1000.00
Pad Gain	0.0004001	0.0003838	0.000200 - 0.000600
Arm Offset	-1628.15	-2276.18	-5000.00 - 3000.00
Arm Gain	0.0004327	0.0004611	0.000300 - 0.000700
Arm Power	0.000000558	-0.000002118	-0.000010 - 0.000010

The ring diameter is computed from: DIAMETER = PAD EXTENSION + ARM EXTENSION + TOOL DIAMETER

Tool Diameter: 4.50 in

CALIBRATION RINGS

Measurement	Current Reading (Previous Coeff.)	Calibrated (New Coeff.)	Change	Control Limit On New Value
PAD EXTENSION:				
Small Ring (in)	1.86	2.00	0.14	+/- 0.20
Medium Ring (in)	3.69	3.75	0.06	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.46	6.50	0.04	+/- 0.20
Medium Ring (in)	8.17	8.25	0.08	+/- 0.20
Large Ring (in)	15.08	15.00	-0.08	+/- 0.20

PASS/FAIL SUMMARY

Calibration-Coefficients Range Check:	Passed
Ring-Measurement Check:	Passed

PASS/FAIL SUMMARY

Calibration-Coefficients Range Check:	Passed

SDLT CALIPER FIELD CALIBRATION

Tool Name:	**SDLT - I04_M296**	**Reference Calibration Date:**	**14-Jun-12 12:01:55**
Engineer:	**THOMAS HYDE**	**Calibration Date:**	**14-Jun-12 12:03:25**
Software Version:	**WL INSITE R3.4.2 (Build 2)**	**Calibration Version:**	**1**

MEASURED CALIPER VALUES

Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.74	-0.01	+/- 0.10
Ring Diameter	8.25	8.22	-0.03	+/- 0.15

PASS/FAIL SUMMARY	
Pad Extension Check:	Passed
Diameter Check:	Passed

MICRO LOG SHOP CALIBRATION

Tool Name: Microlog Pad - M296 **Reference Calibration Date:** 01-Jan-70 00:00:00

Engineer: THOMAS HYDE **Calibration Date:** 19-May-12 15:53:34

Software Version: WL INSITE R3.4.2 (Build 2) **Calibration Version:** 1

CALIBRATION COEFFICIENT SUMMARY

Measurement	Micro Log Normal		Micro Log Lateral		
	Measured	Calibrated	Measured	Calibrated	Units
Tool Zero	-0.27	-0.27	-0.16	-0.16	ohmm
Calibration Point #1	0.00	0.00	0.00	0.00	ohmm
Calibration Point #2	20.00	20.00	20.00	20.00	ohmm
Internal Reference	20.43	20.43	20.39	20.39	ohmm

Measurement	Micro Log Normal Tool Value	Micro Log Lateral Tool Value	Units
Tool Zero	-0.50	-0.18	V
Calibration Point #1	69.00	51.86	V
Calibration Point #2	5177.32	6760.23	V
Internal Reference	5286.51	6889.75	V

MICRO LOG FIELD CHECK

Tool Name: Microlog Pad - M296 **Reference Calibration Date:** 19-May-12 15:53:34

Engineer: THOMAS HYDE **Calibration Date:** 14-Jun-12 12:04:25

Software Version: WL INSITE R3.4.2 (Build 2) **Calibration Version:** 1

Measurement	Micro Log Normal		Micro Log Lateral		
	Shop	Field	Shop	Field	Units
Tool Zero	-0.27	-0.27	-0.16	-0.15	ohmm
Internal Reference	20.43	20.45	20.39	20.41	ohmm

Summary

Signal	Shop	Field	Difference	Tolerence
Microlog Normal	20.43	20.45	-0.02	+/- 0.80
Microlog Lateral	20.39	20.41	-0.02	+/- 0.80

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-11039640						
Gamma Ray Calibrator	269.6	269.6	----------	0.0	+/- 9.00	api
DSNT-11055304						
Snow-Block Porosity	0.0602	0.0602	----------	0.0000	+/- 0.0150	decp
SDLT-I04_M296						
Pad Extension	3.75	3.74	----------	0.01	+/-0.10	in
Ring Diameter	8.25	8.22	----------	0.030	+/-0.15	in

Ring Diameter	8.25	8.22	----------	0.030	+/-0.15	in
Microlog Pad-M296						
MicroLog Normal	20.43	20.45	----------	-0.02	+/-0.80	ohmm
MicroLog Lateral	20.39	20.41	----------	-0.02	+/-0.80	ohmm

Data: SALT_3419_SWD14\0001 SP-GTET-CSNG-DSN-SDLT-FLEX-WSTT-XRMI-ACRT-CH\IDLE **Date: 15-Jun-12 11:44:49**

HALLIBURTON

PARAMETERS REPORT

Depth ((ft))	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	8.750	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.000	ppg
	SHARED	WAGT	Weighting Agent	Natural	
	SHARED	BSAL	Borehole salinity	0.00	ppm
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
	SHARED	RMUD	Mud Resistivity	2.000	ohmm
	SHARED	TRM	Temperature of Mud	75.0	degF
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	7.000	in
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	6748.00	ft
	SHARED	BHT	Bottom Hole Temperature	200.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	XRMI-I Instrument	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	XRMI-I Instrument	
	SHARED	TEMM	Temperature Master Tool	NONE	
	SHARED	BHSM	Borehole Size Master Tool	NONE	
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
	Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
	Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
	Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
	Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
	Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
	GTET	GROK	Process Gamma Ray?	Yes	
	GTET	GRSO	Gamma Tool Standoff	0.000	in
	GTET	GEOK	Process Gamma Ray EVR?	No	
	GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
	CSNG	CGOK	Process CSNG Data?	Yes	
	CSNG	CENT	Is Tool Centralized?	No	
	CSNG	GBOK	Gamma Enviromental Corrections?	Yes	
	CSNG	BARF	Barite Correction Factor	1.00	
	CSNG	ORDG	Use Fixed Gain	No	
	CSNG	ORDO	Use Fixed Offset	No	
	CSNG	ORDR	Use Fixed Resolution Degradation Factor	No	

CSNG	ORDR	Use Fixed Resolution Degradation Factor	No	
DSNT	DNOK	Process DSN?	Yes	
DSNT	DEOK	Process DSN EVR?	No	
DSNT	NLIT	Neutron Lithology	Limestone	
DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
DSNT	DNTP	Temperature Correction Type	None	
DSNT	DPRS	DSN Pressure Correction Type	None	
DSNT	SHCO	View More Correction Options	No	
DSNT	UTVD	Use TVD for Gradient Corrections?	No	
DSNT	LHWT	Logging Horizontal Water Tank?	No	
SDLT	CLOK	Process Caliper Outputs?	Yes	
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
SDLT Pad	DNOK	Process Density?	Yes	
SDLT Pad	DNOK	Process Density EVR?	No	
SDLT Pad	CB	Logging Calibration Blocks?	No	
SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	DTWN	Disable temperature warning	No	
SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
WAVE Receivers	WSOK	Process WSTT?	Yes	
WAVE Receivers	AFIL	Adaptive Filtering?	No	
WAVE Receivers	PINT	Process 1 Sample and Skip	0	
WAVE Receivers	PROM	Process Mode: M=1,MX=2,MY=3,MXY=4	4	
WAVE Receivers	DTSH	Delta -T Shale	100.00	uspf
WAVE Receivers	DTMT	Delta -T Matrix Type	User define	
WAVE Receivers	DTMA	Delta -T Matrix	47.60	uspf
WAVE Receivers	DTFL	Delta -T Fluid	189.00	uspf
WAVE Receivers	RHOM	Matrix Density	2.7100	g/cc
WAVE Receivers	RHOF	Fluid Density	1.0000	g/cc
WAVE Receivers	SMTL	Semblance Threshold	0.25	
WAVE Receivers	VPVS	VPVS Ratio for Porosity	1.40	
WAVE Receivers	APEQ	Acoustic Porosity Equation	Wylie	
WAVE Receivers	NAVS	Navigation Source Tool	XRMI-I Instrument	
XRMI-I Instrument	WRTI	Survey Writing Interval	30	ft
XRMI-I Instrument	SOPT	Smoothing Option	None	
XRMI-I Mandrel	DIMG	Process XRMI?	Yes	
XRMI-I Mandrel	ROTI	Rotate Image (N-E-S-W-N)?	Yes	
XRMI-I Mandrel	AGN	Use Button Auto Gain?	Yes	
XRMI-I Mandrel	BCLR	Button Auto Gain Color	127	
XRMI-I Mandrel	BFIL	Button Auto Gain Filter	0.020	
XRMI-I Mandrel	BGAN	Button Gain Value	0.001	
XRMI-I Mandrel	BOFF	Button Offset	0	
XRMI-I Mandrel	DIPE	Process Dipmeter Calculations?	Yes	
XRMI-I				

	Mandrel	BHCS	Process Borehole Corrections?	Yes	
	XRMI-I Mandrel	CLOK	Process Caliper Outputs?	Yes	
	XRMI-I Mandrel	CMAX	Caliper Maximum Limit	100.0	in
	XRMI-I Mandrel	CMIN	Caliper Mimimum Limit	3.5	in
	XRMI-I Mandrel	NAVS	Navigation Source Tool	XRMI-I Instrument	
	ACRt Sonde	RTOK	Process ACRt?	Yes	
	ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
	ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Upr	
	ACRt Sonde	TPOS	Tool Position	Free Hanging	
	ACRt Sonde	RMOP	Rmud Source	Mud Cell	
	ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
	ACRt Sonde	RMIN	Maximum Resistivity for MAP	200.00	ohmm
	ACRt Sonde	THQY	Threshold Quality	0.50	

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INPUTS, DELAYS AND FILTERS TABLE

Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
	Depth Panel			
TENS	Tension	0.00	NO	
	SP Sub			
PLTC	Plot Control Mask	124.24	NO	
SP	Spontaneous Potential	124.24	BLK	1.250
SPR	Raw Spontaneous Potential	124.24	NO	
SPO	Spontaneous Potential Offset	124.24	NO	
	GTET			
TPUL	Tension Pull	116.22	NO	
GR	Natural Gamma Ray API	116.22	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	116.22	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	116.22	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
	CSNG			
TPUL	Tension Pull	108.13	NO	
STAT	Status	108.13	NO	
FRMC	Tool Frame Count	108.13	BLK	0.250
TFRM	Total Frames	108.13	NO	
LSPD	Line Speed	108.13	BLK	0.250
CTIM	Accumulation time for sample	108.13	BLK	0.250
NOIS	Spectral Noise	108.13	BLK	0.250
STAB	Stabilizer Voltage in mv	108.13	BLK	0.250
STBP	Stabilizer 60 KEV Peak	108.13	BLK	0.250
AMER	Americium	108.13	BLK	0.250
FTMP	Flask PCB Temperature	108.13	BLK	0.250
SPEL	Low Energy Spectrum	108.13	BLK	0.250
SPEH	High Energy Spectrum	108.13	BLK	0.250
SSP	Stabilization Energy Spectrum	108.13	BLK	0.250
CSPC	CSNG Lo Hi Spectrum Data	108.13	NO	
	DSNT			

TPUL	Tension Pull	97.81	NO	
RNDS	Near Detector Telemetry Counts	97.91	BLK	1.417
RFDS	Far Detector Telemetry Counts	98.66	TRI	0.583
DNTT	DSN Tool Temperature	97.91	NO	
DSNS	DSN Tool Status	97.81	NO	
ERND	Near Detector Telemetry Counts EVR	97.91	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	98.66	BLK	0.000
ENTM	DSN Tool Temperature EVR	97.91	NO	

SDLT				
TPUL	Tension Pull	87.91	NO	
PCAL	Pad Caliper	87.91	TRI	0.250
ACAL	Arm Caliper	87.91	TRI	0.250

WAVE Receivers				
TPUL	Tension Pull	56.79	NO	
XMS1	Wave Sonic Status Word 1	53.54	NO	
XMS2	Wave Sonic Status Word 2	53.54	NO	
XMS1	Wave Sonic XMITStatus Word 1	53.54	NO	
XMS1	Wave Sonic XMITStatus Word 2	53.54	NO	
F1HA	Dipole 1 HV After	53.54	NO	
F1HB	Dipole 1 HV Before	53.54	NO	
F2HA	Dipole 2 HV After	53.54	NO	
F2HB	Dipole 2 HV Before	53.54	NO	
F3HA	Monopole HV After	53.54	NO	
F3HB	Monopole HV Before	53.54	NO	
F4HA	Monopole 2 HV After	53.54	NO	
F4HB	Monopole 2 HV Before	53.54	NO	
INVT	Input Voltage	53.54	NO	
5VOL	5 Volts	53.54	NO	
MI5A	Minus 5 Volts Analog	53.54	NO	
ITMP	Instrument Temperature	53.54	NO	
PL5A	Plus 5 Volts Analog	53.54	NO	
5VD	Plus 5 Volts Digital	53.54	NO	
TCUR	Tool Current	53.54	NO	
SUPV	Supply Voltage	53.54	NO	
PRVT	Preregulated voltage	53.54	NO	
PRVT	Pre-regulated voltage Xmter	53.54	NO	
TEMP	Temperature	53.54	NO	
ACQN	Acquisition Number	53.54	NO	
XDP	Delay Reference	56.79	NO	
MITM	MIT Mode	56.79	NO	
VERS	Version	53.54	NO	
SEQN	Sequence Number	53.54	NO	
FREV	Firmware Revision	53.54	NO	
WVST	Wavesonic Compressed Data	56.79	NO	
WVS4	Wavesonic Monopole 2 Compressed Data	56.79	NO	
TPUL	Tension Pull	56.79	NO	
WMP	Summed array of Monopole for SIDES - A,B,C,D	56.79	NO	
WM2P	Summed array of Monopole 2 for SIDES - A,B,C,D	56.79	NO	
WXX	Dipole X for SIDES - A-C	56.79	NO	
WYY	Dipole Y for SIDES - B-D	56.79	NO	
WXY	Dipole X for SIDES - B-D	56.79	NO	
WYX	Dipole Y for SIDES - A-C	56.79	NO	
TPUL	Tension Pull	56.79	NO	
	Monopole Waveform Side A - Channel 1 to Channel 8			

WMA	Monopole Waveform Side A - Channel 1 to Channel 8 Receivers	56.79	NO
WMB	Monopole Waveform Side B - Channel 1 to Channel 8 Receivers	56.79	NO
WMC	Monopole Waveform Side C - Channel 1 to Channel 8 Receivers	56.79	NO
WMD	Monopole Waveform Side D - Channel 1 to Channel 8 Receivers	56.79	NO
WM2A	Monopole 2 Waveform Side A - Channel 1 to Channel 8 Receivers	56.79	NO
WM2B	Monopole 2 Waveform Side B - Channel 1 to Channel 8 Receivers	56.79	NO
WM2C	Monopole 2 Waveform Side C - Channel 1 to Channel 8 Receivers	56.79	NO
WM2D	Monopole 2 Waveform Side D - Channel 1 to Channel 8 Receivers	56.79	NO
WXA	Dipole X Waveform Side A - Channel 1 to Channel 8 Receivers	56.79	NO
WXB	Dipole X Waveform Side B - Channel 1 to Channel 8 Receivers	56.79	NO
WXC	Dipole X Waveform Side C - Channel 1 to Channel 8 Receivers	56.79	NO
WXD	Dipole X Waveform Side D - Channel 1 to Channel 8 Receivers	56.79	NO
WYA	Dipole Y Waveform Side A - Channel 1 to Channel 8 Receivers	56.79	NO
WYB	Dipole Y Waveform Side B - Channel 1 to Channel 8 Receivers	56.79	NO
WYC	Dipole Y Waveform Side C - Channel 1 to Channel 8 Receivers	56.79	NO
WYD	Dipole Y Waveform Side D - Channel 1 to Channel 8 Receivers	56.79	NO

XRMI-I Mandrel			
TPUL	Tension Pull	22.60	NO
PAD1	XRMI Pad 1 values	22.36	NO
PAD2	XRMI Pad 2 values	22.36	NO
PAD3	XRMI Pad 3 values	22.36	NO
PAD4	XRMI Pad 4 values	22.36	NO
PAD5	XRMI Pad 5 values	22.36	NO
PAD6	XRMI Pad 6 values	22.36	NO
OD1	EMI Odd Button Values Pad 1	22.36	NO
OD2	EMI Odd Button Values Pad 2	22.60	NO
OD3	EMI Odd Button Values Pad 3	22.36	NO
OD4	EMI Odd Button Values Pad 4	22.60	NO
OD5	EMI Odd Button Values Pad 5	22.36	NO
OD6	EMI Odd Button Values Pad 6	22.60	NO
EV1	EMI Even Button Values Pad 1	22.39	NO
EV2	EMI Even Button Values Pad 2	22.57	NO
EV3	EMI Even Button Values Pad 3	22.39	NO
EV4	EMI Even Button Values Pad 4	22.57	NO
EV5	EMI Even Button Values Pad 5	22.39	NO
EV6	EMI Even Button Values Pad 6	22.57	NO
ITMP	Instrument Temperature	19.83	NO
EMIM	Tool Mode	19.83	NO
HAZI	Hole Azimuth	22.11	NO
HAZI	Hole Azimuth - Down Delay	22.61	NO
ZACC	Accelerometer Z	22.36	NO
TPUL	Tension Pull	22.60	NO
FIR1	Current Button R - Pad 1	22.36	NO
FIR2	Current Button R - Pad 2	22.60	NO
FIR3	Current Button R - Pad 3	22.36	NO
FIR4	Current Button R - Pad 4	22.60	NO
FIR5	Current Button R - Pad 5	22.36	NO

FIR6	Current Button R - Pad 6	22.60	NO	
FIX1	Current Button X - Pad 1	22.36	NO	
FIX2	Current Button X - Pad 2	22.60	NO	
FIX3	Current Button X - Pad 3	22.36	NO	
FIX4	Current Button X - Pad 4	22.60	NO	
FIX5	Current Button X - Pad 5	22.36	NO	
FIX6	Current Button X - Pad 6	22.60	NO	
SIR1	Current Slow Button R - Pad 1	22.36	BLK	3.000
SIR2	Current Slow Button R - Pad 2	22.60	BLK	3.000
SIR3	Current Slow Button R - Pad 3	22.36	BLK	3.000
SIR4	Current Slow Button R - Pad 4	22.60	BLK	3.000
SIR5	Current Slow Button R - Pad 5	22.36	BLK	3.000
SIR6	Current Slow Button R - Pad 6	22.60	BLK	3.000
SIX1	Current Slow Button X - Pad 1	22.36	BLK	3.000
SIX2	Current Slow Button X - Pad 2	22.60	BLK	3.000
SIX3	Current Slow Button X - Pad 3	22.36	BLK	3.000
SIX4	Current Slow Button X - Pad 4	22.60	BLK	3.000
SIX5	Current Slow Button X - Pad 5	22.36	BLK	3.000
SIX6	Current Slow Button X - Pad 6	22.60	BLK	3.000
EMMR	Phasor Voltage - Real Part	22.36	NO	
EMMX	Phasor Voltage - Imaginary Part	22.36	NO	
PADV	Pad Voltage	19.83	BLK	0.250
ITMP	Instrument Temperature	19.83	BLK	0.000
CON1	Conductivity Pad 1	22.36	BLK	3.000
CON2	Conductivity Pad 2	22.60	BLK	3.000
CON3	Conductivity Pad 3	22.36	BLK	3.000
CON4	Conductivity Pad 4	22.60	BLK	3.000
CON5	Conductivity Pad 5	22.36	BLK	3.000
CON6	Conductivity Pad 6	22.60	BLK	3.000
UIR2	Current Button R No Delay - Pad 2	22.36	NO	
UIR4	Current Button R No Delay - Pad 4	22.36	NO	
UIR6	Current Button R No Delay - Pad 6	22.36	NO	
UIX2	Current Button X No Delay - Pad 2	22.36	NO	
UIX4	Current Button X No Delay - Pad 4	22.36	NO	
UIX6	Current Button X No Delay - Pad 6	22.36	NO	
TPUL	Tension Pull	22.60	NO	
ARM1	Caliper 1 measurement	22.36	BLK	0.000
ARM2	Caliper 2 measurement	22.36	BLK	0.000
ARM3	Caliper 3 measurement	22.36	BLK	0.000
ARM4	Caliper 4 measurement	22.36	BLK	0.000
ARM5	Caliper 5 measurement	22.36	BLK	0.000
ARM6	Caliper 6 measurement	22.36	BLK	0.000
MOTV	Motor Voltage Monitor 1	22.36	BLK	0.000
PRES	Caliper percentage of total compression of the spring	19.83	BLK	0.000
HAZI	Hole Azimuth	22.36	NO	
RB	Relative Bearing	22.36	NO	
AZI1	PAD1 Azimuth	22.36	NO	
DEVI	Inclination	22.36	NO	

ACRt Sonde				
TPUL	Tension Pull	2.97	NO	
F1R1	ACRT 12KHz - 80in R value	9.22	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	9.22	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.72	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.72	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	5.22	BLK	0.000

F1X3	ACRT 12KHz - 29in X value	5.22	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	4.22	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	4.22	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.72	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.72	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.47	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.47	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	9.22	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	9.22	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.72	BLK	0.000
F2X2	ACRT 36KHz - 50in X value	6.72	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	5.22	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	5.22	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	4.22	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	4.22	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.72	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.72	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.47	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.47	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	9.22	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	9.22	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.72	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.72	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	5.22	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	5.22	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	4.22	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	4.22	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.72	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.72	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.47	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.47	BLK	0.000
RMUD	Mud Resistivity	12.76	BLK	0.000
F1RT	Transmitter Reference 12 KHz Real Signal	2.97	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	2.97	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	2.97	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	2.97	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	2.97	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	2.97	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	2.97	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	2.97	BLK	0.000
ITMP	Instrument Temperature	2.97	BLK	0.000
TCVA	Temperature Correction Values Loop Off	2.97	NO	
TIDV	Instrument Temperature Derivative	2.97	NO	
TUDV	Upper Temperature Derivative	2.97	NO	
TLDV	Lower Temperature Derivative	2.97	NO	
TRBD	Receiver Board Temperature	2.97	NO	
	Microlog Pad			
TPUL	Tension Pull	88.09	NO	
MINV	Microlog Lateral	88.09	BLK	0.750
MNOR	Microlog Normal	88.09	BLK	0.750
	SDLT Pad			
TPUL	Tension Pull	87.90	NO	
NAB	Near Above	87.72	BLK	0.920
NHI	Near Cesium High	87.72	BLK	0.920

NLO	Near Cesium Low	87.72	BLK	0.920
NVA	Near Valley	87.72	BLK	0.920
NBA	Near Barite	87.72	BLK	0.920
NDE	Near Density	87.72	BLK	0.920
NPK	Near Peak	87.72	BLK	0.920
NLI	Near Lithology	87.72	BLK	0.920
NBAU	Near Barite Unfiltered	87.72	BLK	0.250
NLIU	Near Lithology Unfiltered	87.72	BLK	0.250
FAB	Far Above	88.07	BLK	0.250
FHI	Far Cesium High	88.07	BLK	0.250
FLO	Far Cesium Low	88.07	BLK	0.250
FVA	Far Valley	88.07	BLK	0.250
FBA	Far Barite	88.07	BLK	0.250
FDE	Far Density	88.07	BLK	0.250
FPK	Far Peak	88.07	BLK	0.250
FLI	Far Lithology	88.07	BLK	0.250
PTMP	Pad Temperature	87.91	BLK	0.920
NHV	Near Detector High Voltage	87.30	NO	
FHV	Far Detector High Voltage	87.30	NO	
ITMP	Instrument Temperature	87.30	NO	
DDHV	Detector High Voltage	87.30	NO	

Data: SALT_3419_SWD14\0001 SP-GTET-CSNG-DSN-SDLT-FLEX-WSTT-XRMI-ACRT-CH\IDLE **Date: 15-Jun-12 13:29:09**

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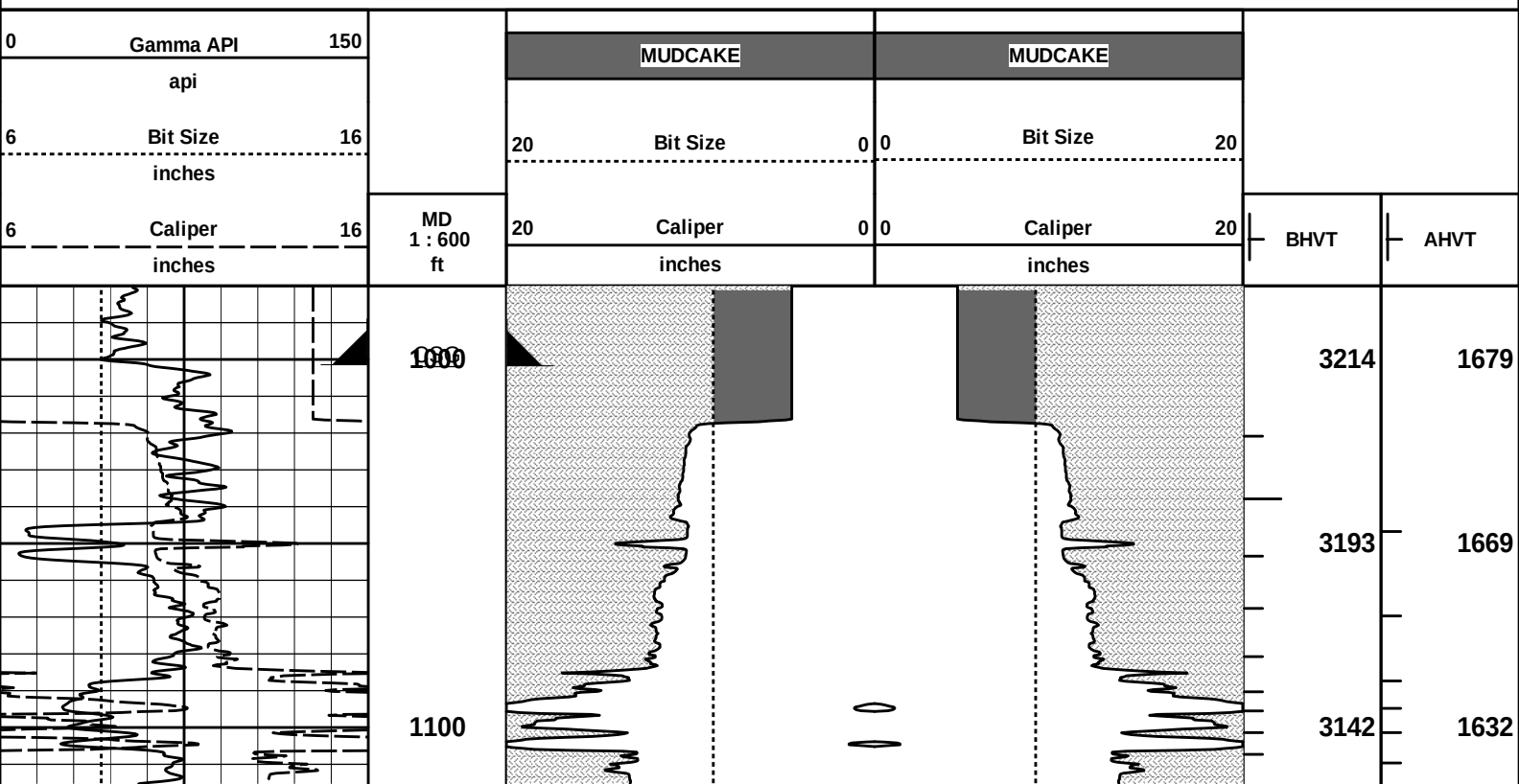
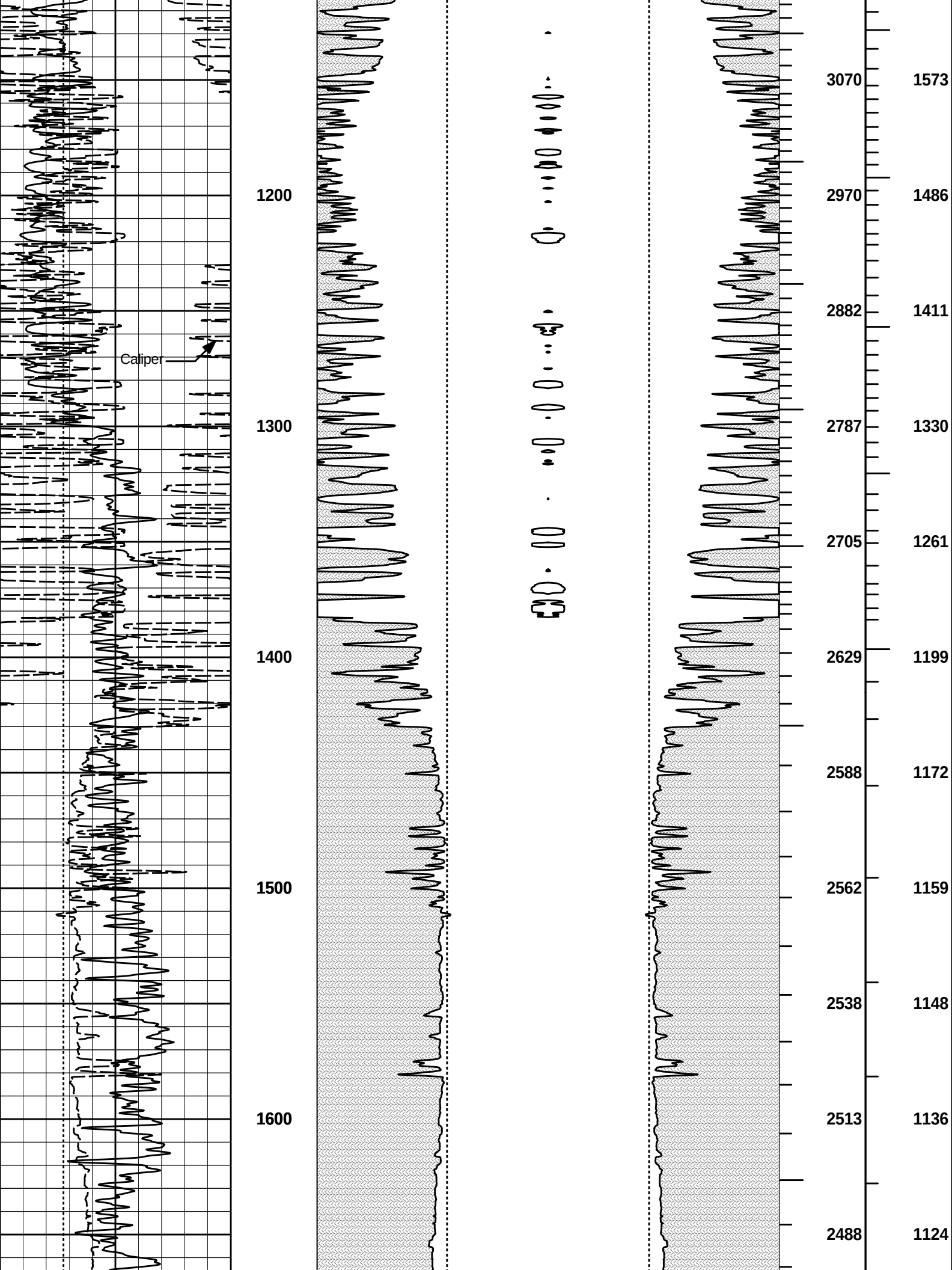
Plot Time: 15-Jun-12 22:12:44
Plot Range: 980 ft to 6751.17 ft
Data: SALT_3419_SWD14\Well Based\CASING
Plot File: \\-LOCAL-\SALT_3419_SWD14\0002 SP-GTET-CSNG-DSN-SDLT-FLEX-WSTT-XRMI-ACRT-CH\PORO\AHV_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT




Caliper
1200
1300
1400
1500
1600
3070
1573
2970
1486
2882
1411
2787
1330
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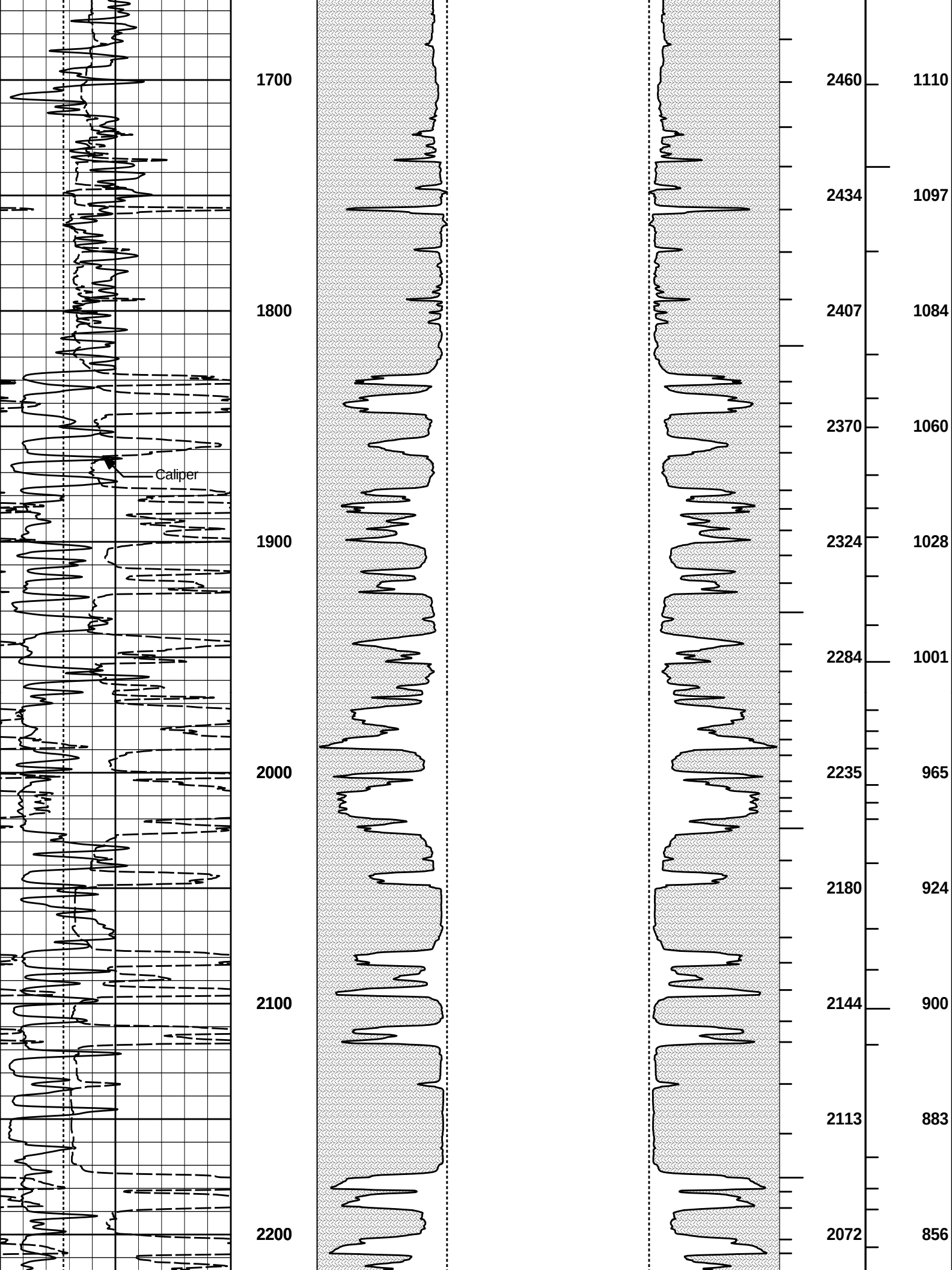
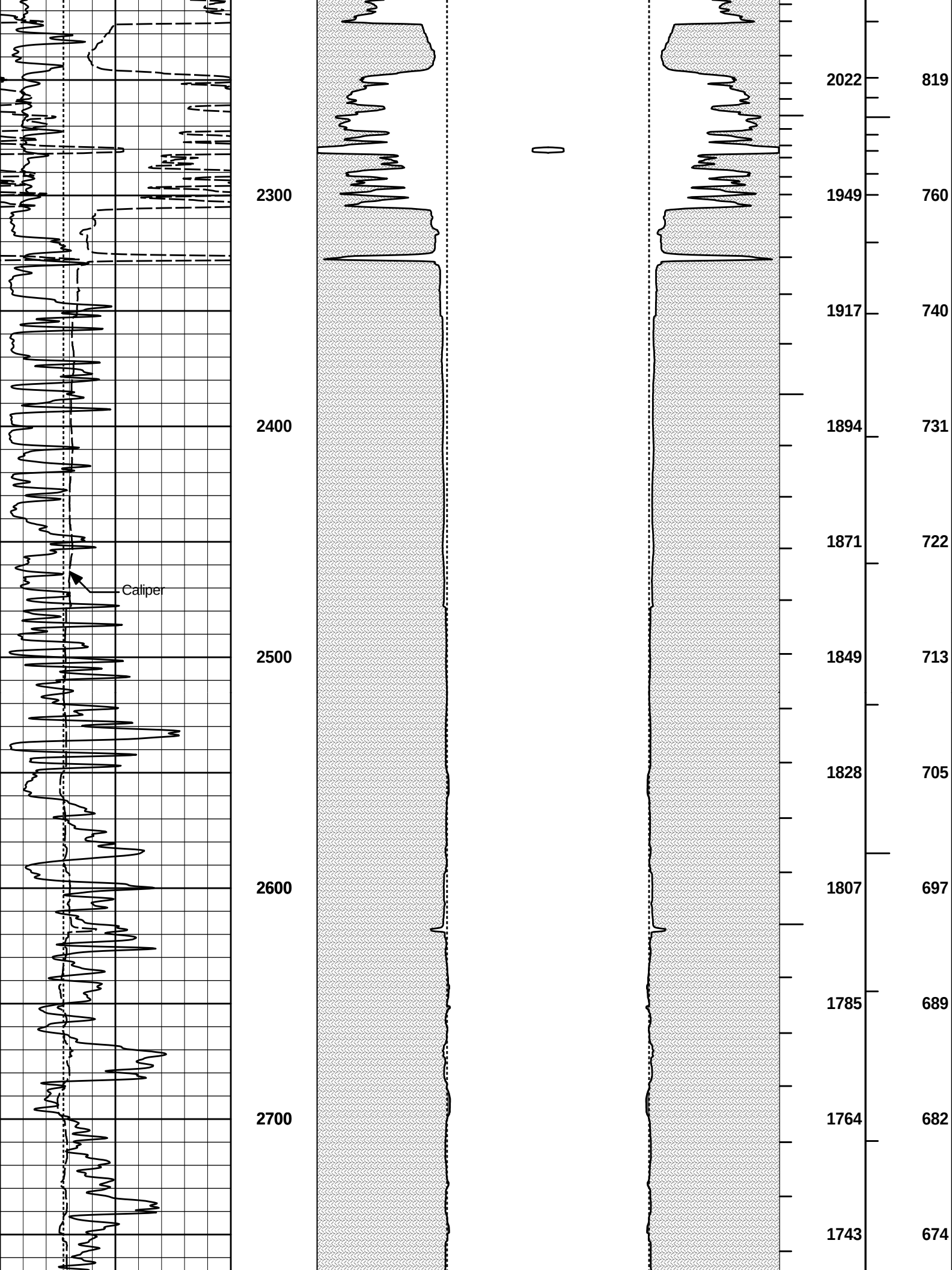
1159
2538
1148
2513
1136
2488
1124


1700
1800
1900
2000
2100
2200
Caliper
2460
2434
2407
2370
2324
2284
2235
2180
2144
2113
2072
1110
1097
1084
1060
1028
1001
965
924
900
883
856


Caliper
2300
2400
2500
2600
2700
2022
819
1949
760
1917
740
1894
731
1871
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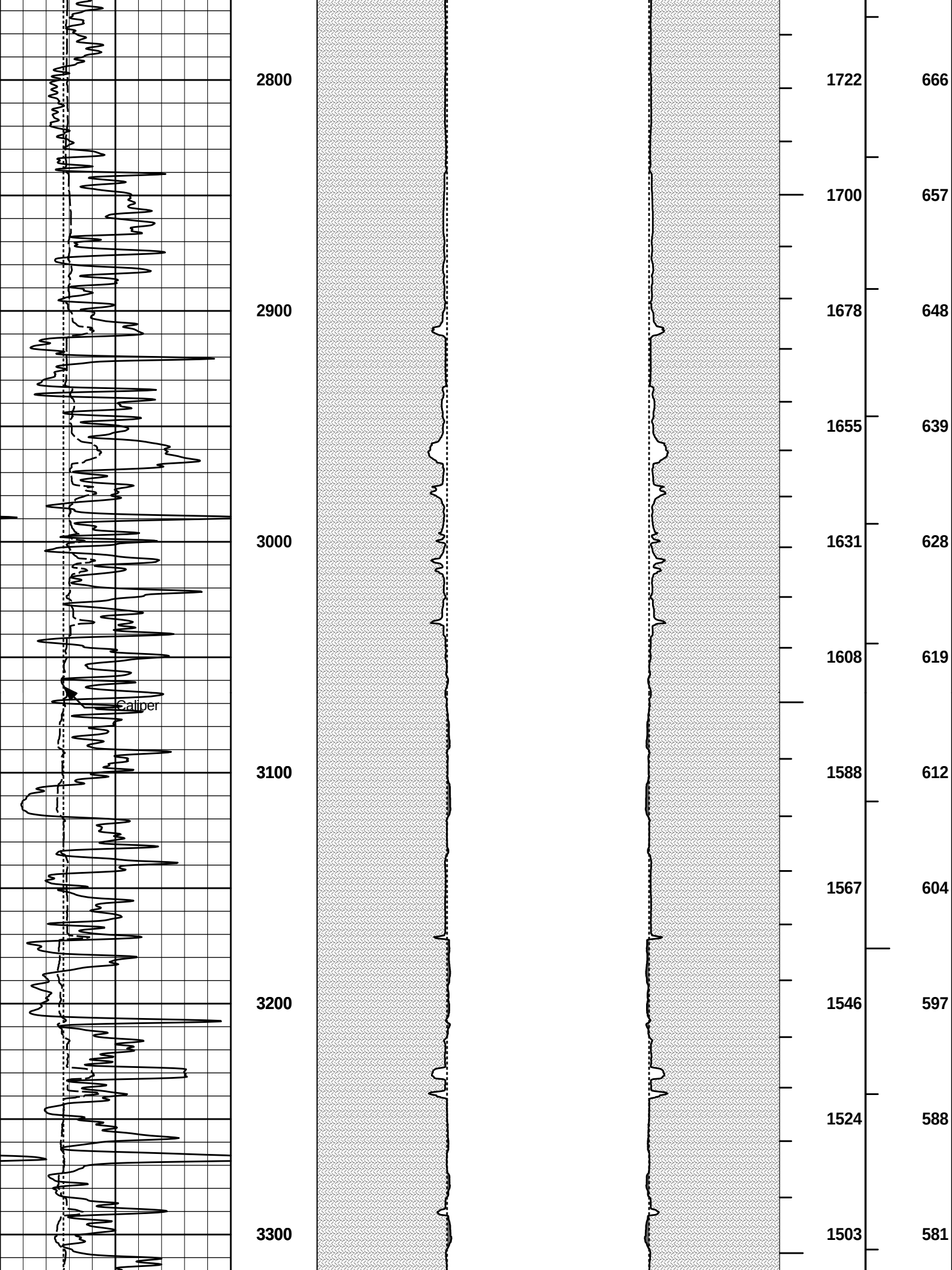
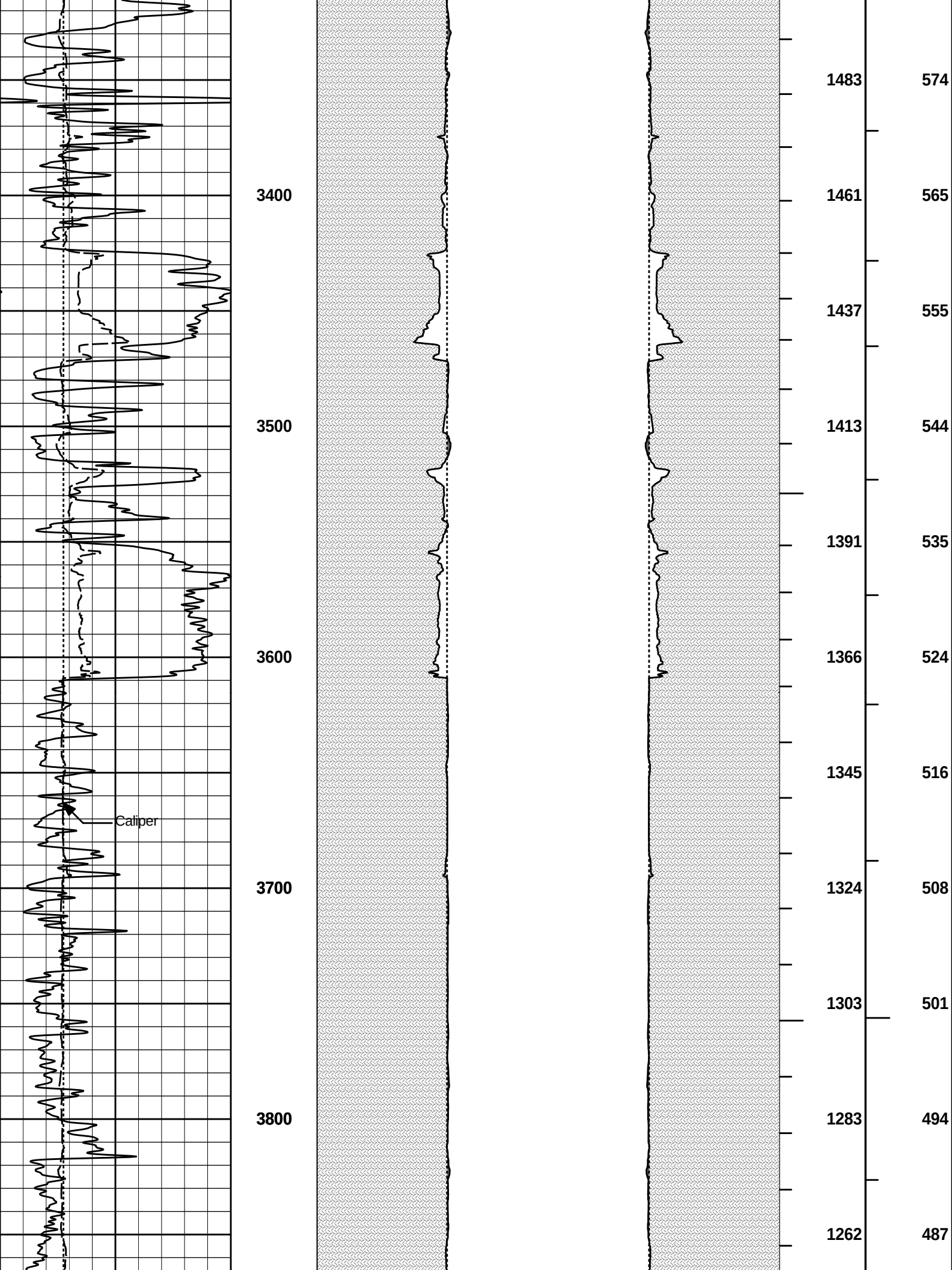
1807
697
1785
689
1764
682
1743
674


Caliper
2800
2900
3000
3100
3200
3300
1722
1700
1678
1655
1631
1608
1588
1567
1546
1524
1503
666
657
648
639
628
619
612
604
597
588
581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3500
3600
3700
3800
Caliper
1483
574
1461
565
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1283
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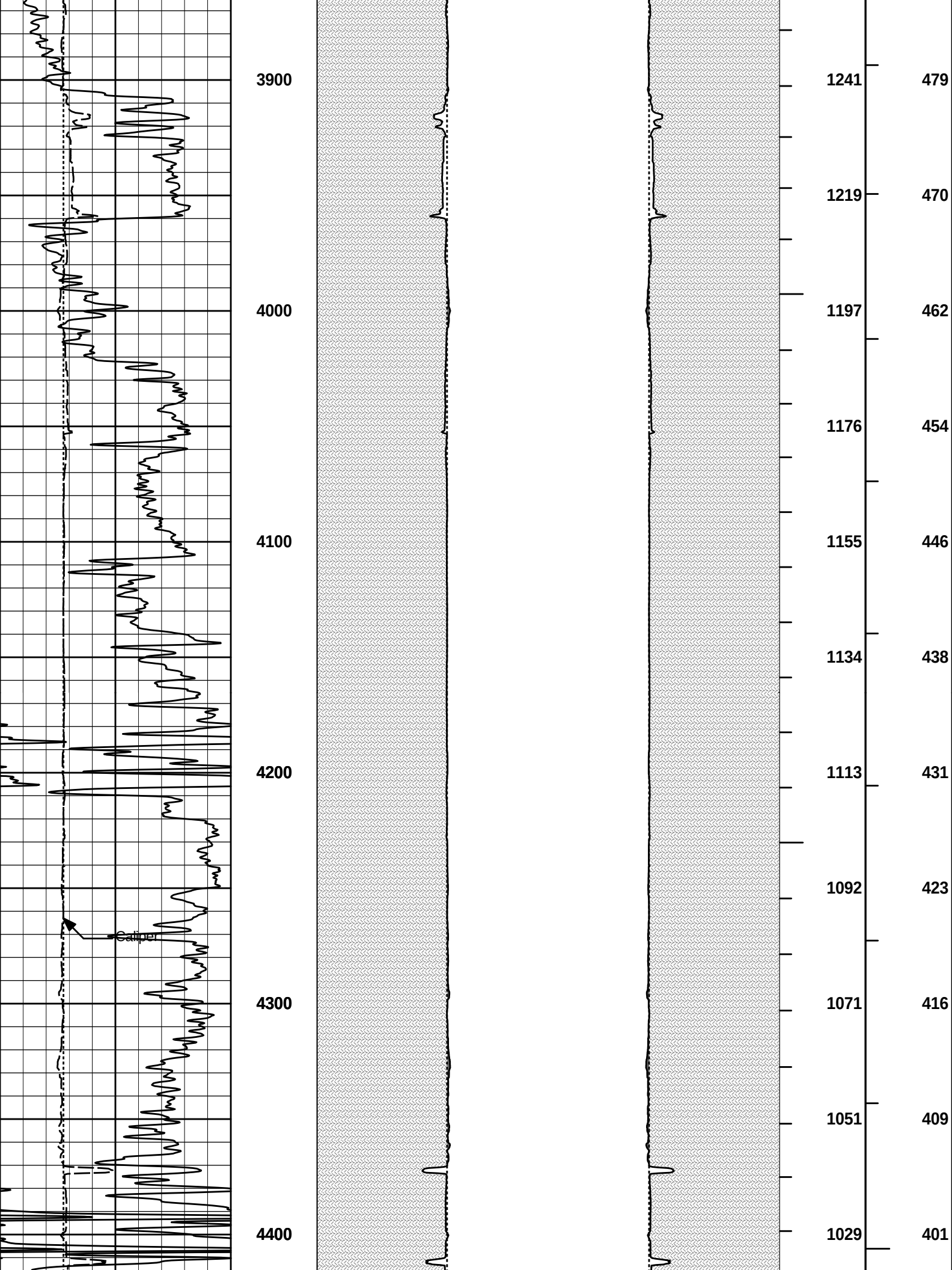
1262
487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4000
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4400
Caliper
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1219
1197
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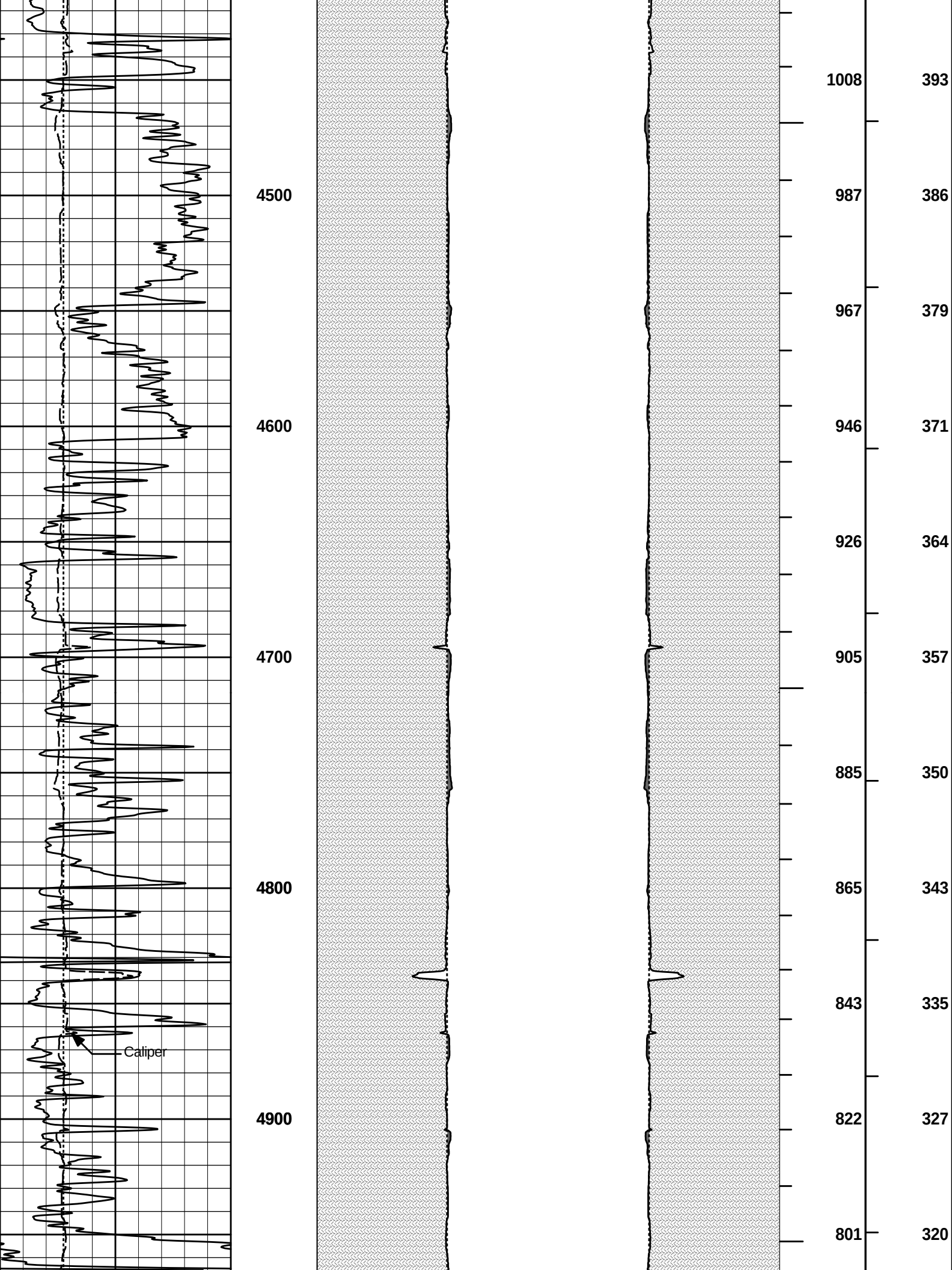
4500
4600
4700
4800
4900
Caliper
1008
987
967
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822
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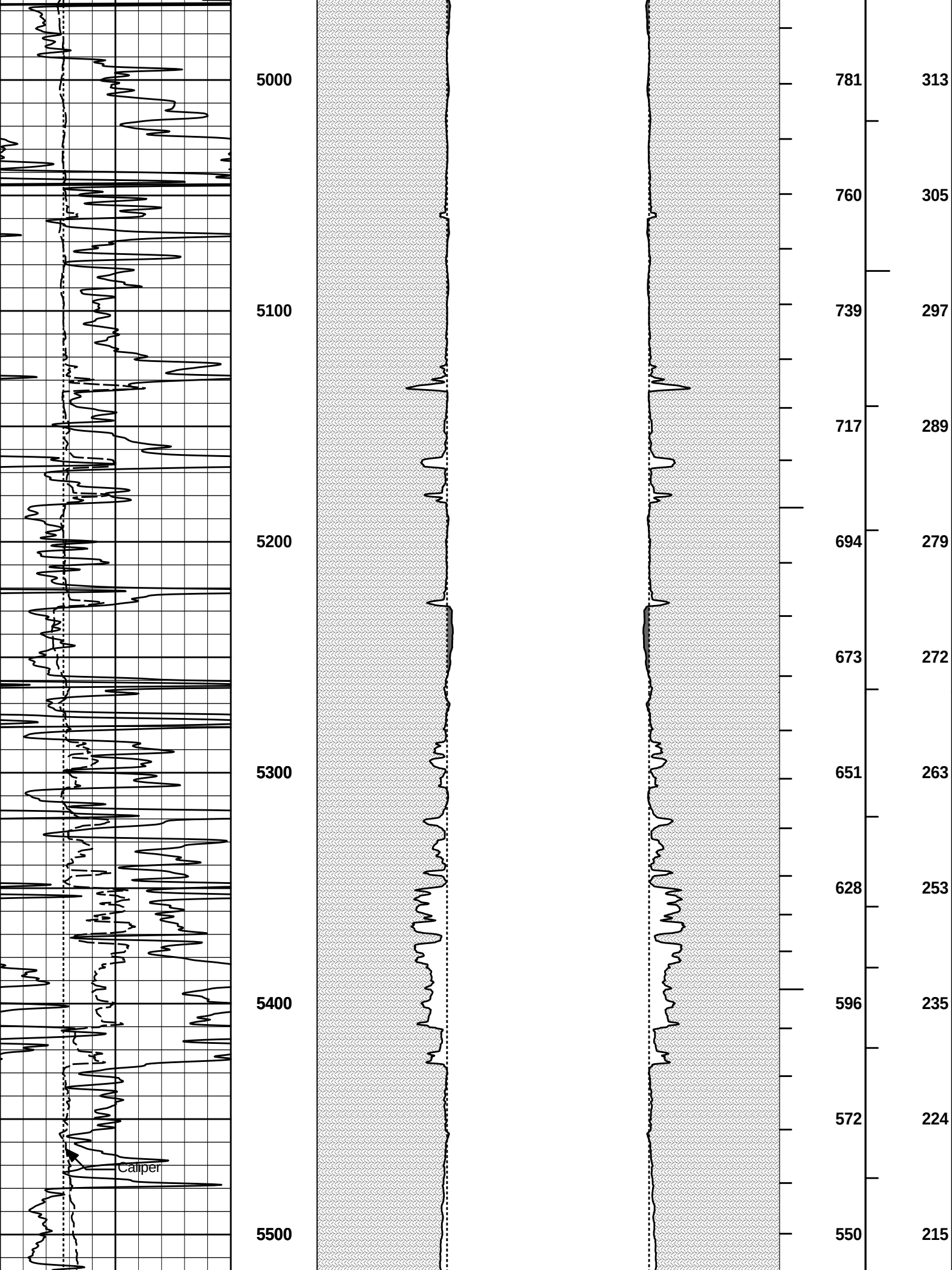
327
320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5200
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Caliper
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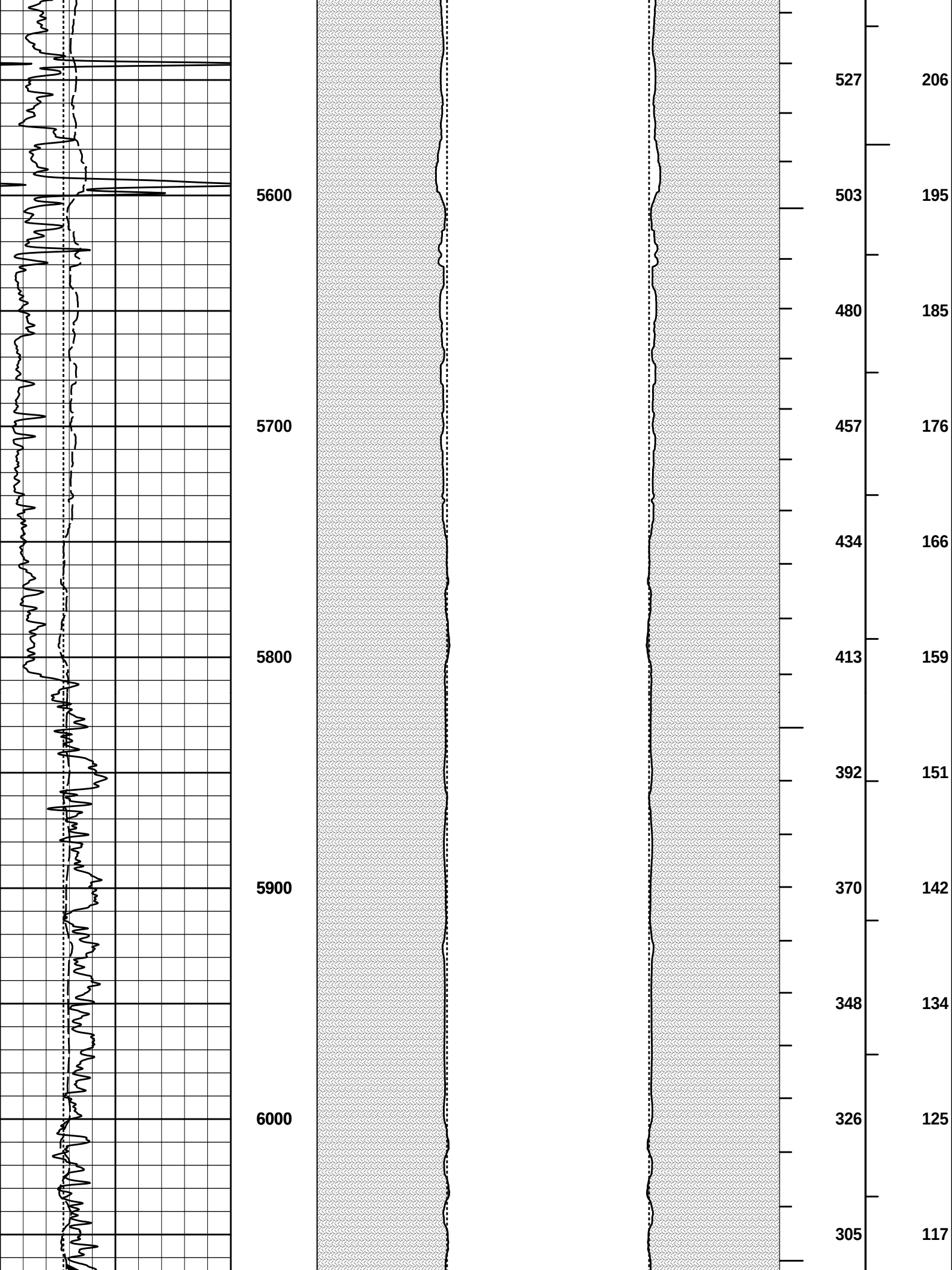
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5900
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527
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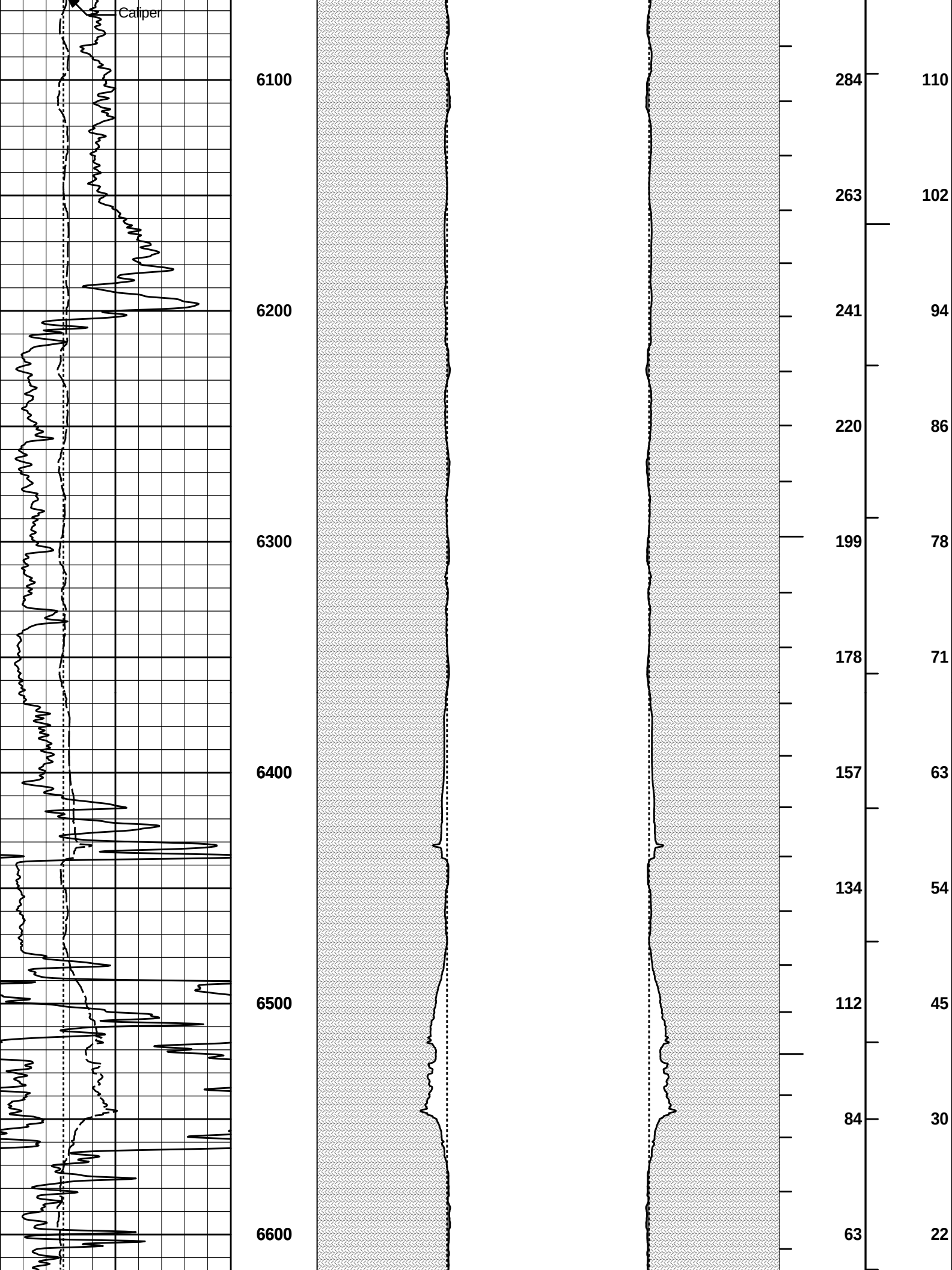
Caliper
6100
6200
6300
6400
6500
6600
284
263
241
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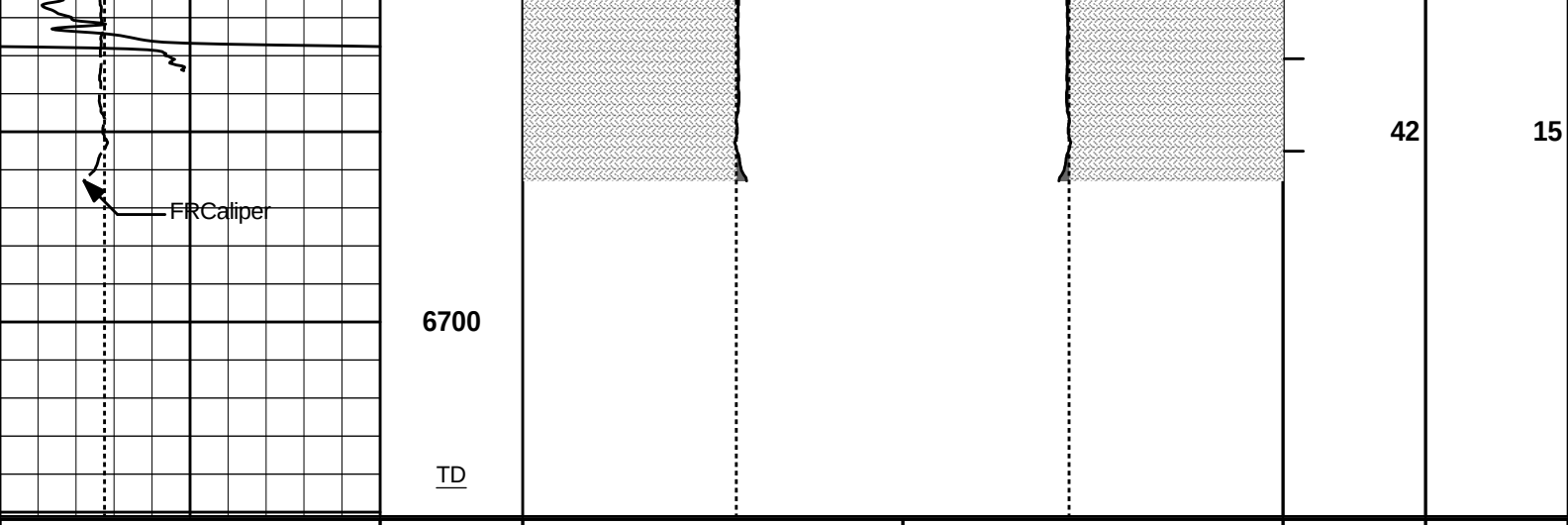
22



6 Caliper 16	MD 1 : 600 ft	20 Caliper 0	0 Caliper 20	BHVT	AHVT
inches		inches	inches		
6 Bit Size 16		20 Bit Size 0	0 Bit Size 20		
inches					
0 Gamma API 150		MUDCAKE	MUDCAKE		
api					

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Plot Time: 15-Jun-12 22:12:52
Plot Range: 980 ft to 6751.17 ft
Data: SALT_3419_SWD14\Well Based\CASING\
Plot File: \\-LOCAL-\SALT_3419_SWD14\0002 SP-GTET-CSNG-DSN-SDLT-FLEX-WSTT-XRMI-ACRT-CH\PORO\AHV_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT

COMPANY	**SANDRIDGE ENERGY**		
WELL	**SALT SWD 3419 1-4**		
FIELD	**SADDLE**		
COUNTY	**COMANCHE**	STATE	**KANSAS**

HALLIBURTON

SPECTRAL DENSITY
DUAL SPACED NEUTRON
LOG